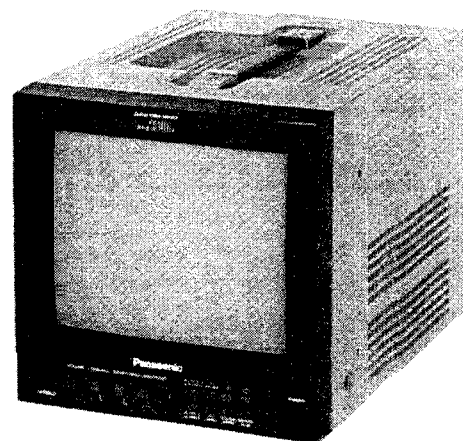


Service Manual

Colour Video Monitor BT-S1000Y/YG

KII Chassis

YG..... U.K. Only



The service technician is required to read and follow the "Safety Precautions" and "Important Safety Notice" in this service manual.

Specifications

Type	: Colour video monitor	LINE B/EXT. SYNC	: BNC×2
Colour system	: PAL/SECAM system		VS—1Vp-p, 75Ω, negative sync.
CRT	: 10" (measured diagonally), 90° deflection, in-line gun, data-grade tinted CRT tri-dot pitch 0.47mm		S—1—4Vp-p, 75Ω, negative sync. Bridged connection is possible. (A termination switch is provided.)
Audio output	: 1.0W	S-VIDEO INPUT	: Y/C-4-pin connector×2
Speaker	: 8cm round×1		Y—1Vp-p, 75Ω, negative sync.
Screen size (H×V)	: 173×137mm		C—0.3Vp-p (burst), 75Ω, Bridged connection is possible. (A termination switch is provided.)
Scanning frequency	: (H) 15.625kHz (V) 50Hz		AUDIO —390mVrms, high impedance Bridged connection is possible.
Horizontal resolution	: More than 300 lines	Weight	: 9.0kg
Power requirement	: AC 220—240V, 50/60Hz, DC 12V	Accessory	: Power cord (approx. 2.0m) ×1
Power consumption	: AC 0.39A DC 3.0A	Dimensions	: Width 223mm Depth 332.2mm Height 230mm
LINE A	: VIDEO—BNC×2 VS—1Vp-p, 75Ω, negative sync. Bridged connection is possible. (A termination switch is provided.) AUDIO—RCA pin connector×2 390mVrms, high impedance Bridged connection is possible.		

Panasonic

Contents

	Page
Safety Precaution	3
Location of Controls and Switches	4
Location of Terminals	5
Connections	6, 7
Disassembly Instructions	8~10
Measurements and Adjustments	11~21
Terminal Guide of IC's and Transistors	21
Circuit Boards	22~26
Block Diagram	27~29
Schematic Diagram	30~35
Exploded Views	36, 37
Replacement Parts List	38~48

Safety Precaution

1. The design of this product contains special hardware, many circuits and components specially for safety purposes. For continued protection, no changes should be made to the original design unless authorized in writing by the manufacturer. Replacement parts must be identical to those used in the original circuits. Service should be performed by qualified personnel only.
2. Alterations of the design or circuitry of the products should not be made. Any design alterations or additions will void the manufacturer's warranty and will further relieve the manufacturer of responsibility for personal injury or property damage resulting therefrom.
3. Many electrical and mechanical parts in the products have special safety-related characteristics. These characteristics are often not evident from visual inspection nor can the protection afforded by them necessarily be obtained by using replacement components rated for higher voltage, wattage, etc. Replacement parts which have these special safety characteristics are identified in the parts list of Service manual. Electrical components having such features are identified by shading on the schematics and by (⚠) on the parts list in Service manual. The use of a substitute replacement which does not have the same safety characteristics as the recommended replacement part shown in the parts list of Service manual may create shock, fire, or other hazards.
4. **Don't short between the LIVE side ground and NEUTRAL side grounding or EARTH side ground when repairing.**
Some model's power circuit is partly different in the GND. The difference of the GND is shown by the LIVE (⊥) side GND, the NEUTRAL (⏏) side GND and EARTH (⊕) side GND. Don't short between the LIVE side GND and NEUTRAL side GND or EARTH side GND and never measure with a measuring apparatus (oscilloscope etc.) the LIVE side GND and NEUTRAL side GND or EARTH side GND at the same time. If above note will not be kept, a fuse or any parts will be broken.
5. If any repair has been made to the chassis, it is recommended that the B1 setting should be checked or adjusted (See ADJUSTMENT OF B₁ POWER SUPPLY).
6. The high voltage applied to the picture tube must conform with that specified in Service manual. Excessive high voltage can cause an increase in X-Ray emission, arcing and possible component damage, therefore operation under excessive high voltage conditions should be kept to a minimum, or should be prevented. If severe arcing occurs, remove the AC power immediately and determine the cause by visual inspection (incorrect installation, cracked or melted high voltage harness, poor soldering, etc.). To maintain the proper minimum level of soft X-Ray emission, components in the high voltage circuitry including the picture tube must be the exact replacements or alternatives approved by the manufacturer of the complete product.
7. Do not check high voltage by drawing an arc. Use a high voltage meter or a high voltage probe with a VTVM. Discharge the picture tube before attempting meter connection, by connecting a clip lead to the ground frame and connecting the other end of the lead through a 10kΩ 2W resistor to the anode button.
8. When service is required, observe the original lead dress. Extra precaution should be given to assure correct lead dress in the high voltage circuit area. Where a short circuit has occurred, those components that indicate evidence of overheating should be replaced. Always use the manufacturer's replacement components.

9. Isolation Check

(Safety for Electrical Shock Hazard)

After re-assembling the product, always perform an isolation check on the exposed metal parts of the cabinet (antenna terminals, video/audio input and output terminals, Control knobs, metal cabinet, screwheads, earphone jack, control shafts, etc.) to be sure the product is safe to operate without danger of electrical shock.

(1) Dielectric Strength Test

The isolation between the AC primary circuit and all metal parts exposed to the user, particularly any exposed metal part having a return path to the chassis should withstand a voltage of 3000V AC (r.m.s.) for a period of one second.

(... Withstand a voltage of 1100V AC (r.m.s.) to an appliance rated up to 120V, and 3000V AC (r.m.s.) to an appliance rated 200V or more, for a period of one second.)

This method of test requires a test equipment not generally found in the service trade.

(2) Leakage Current Check

Plug the AC line cord directly into the AC outlet (do not use a line isolation transformer during this check.) Using a "Leakage Current Tester", measure the leakage current from each exposed metal part of the cabinet, particularly any exposed metal part having a return path to the chassis, to a known good earth ground (water pipe, etc.). Any leakage current must not exceed 0.5mA AC (r.m.s.).

• Alternate Check Method

Plug the AC line cord directly into the AC outlet (do not use a line isolation transformer during this check.) Use an AC voltmeter having 1,000 ohms per volt or more sensitivity in the following manner. Connect a 1,500Ω 10W resistor paralleled by a 0.15μF AC-type capacitor between an exposed metal part and a known good earth ground (water pipe, etc.). Measure the AC voltage across the resistor with the AC voltmeter. Move the resistor connection to each exposed metal part, particularly any exposed metal part having a return path to the chassis, and measure the AC voltage across the resistor. Now, reverse the plug in the AC outlet and repeat each measurement. Any voltage measured must not exceed 0.35V AC (r.m.s.). This corresponds to 0.5mA AC (r.m.s.).

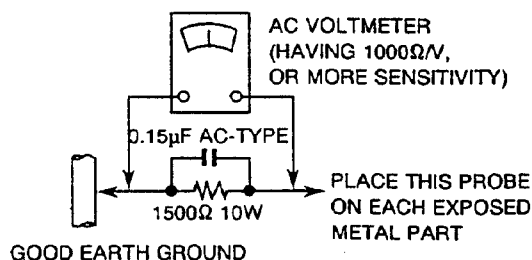
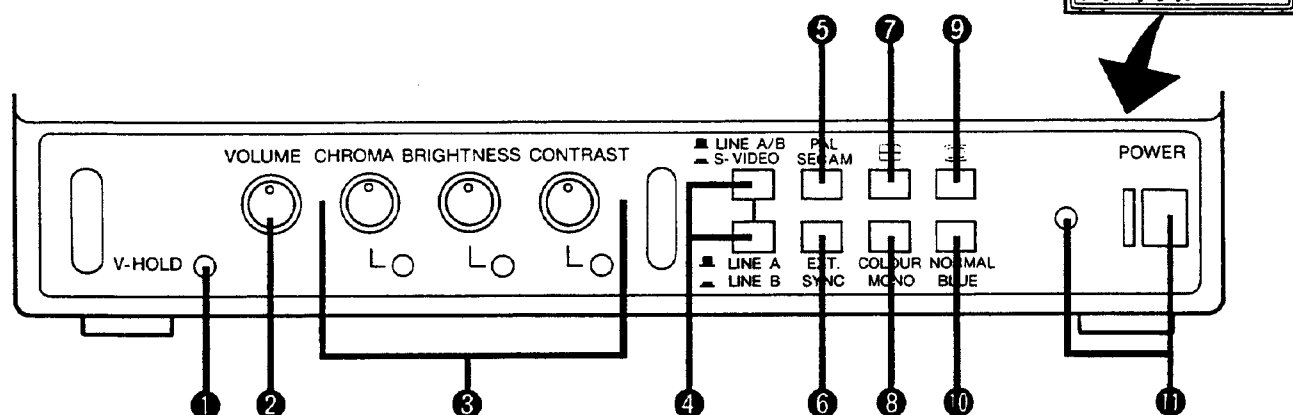


Fig.A

Location of Controls and Switches

Front Panel



① V-HOLD control

Turn to adjust the vertical synchronization of the picture.

② VOLUME control

Turn clockwise to make the sound louder. Counterclockwise to make it softer.

③ Picture controls

Use to optimize the picture. The centre click position of each control is its standard setting. This standard setting can be varied (preset) by turning the SUB control screws at the side of the controls. Use a screwdriver to turn the SUB controls.

• CHROMA control

Turn to adjust the colour density of the picture to your preference.

• BRIGHTNESS control

Turn to adjust the picture brightness to your preference.

• CONTRAST control

Turn to adjust the picture contrast to your preference.

④ Input select switches

Press to select the video signals input to the rear connectors. (Selecting the signals)

(1) Set the switch on the upper side to LINE A/B or S-VIDEO position.

LINE A/B () : When monitoring a composite video signal (via the LINE A or LINE B connector on the rear panel)

S-VIDEO () : When monitoring Y/C separate video signals (via the S-VIDEO INPUT connector on the rear panel)

(2) While setting the upper switch to "LINE A/B", set the switch on the lower side to LINE A or LINE B position.

LINE A () : When monitoring a signal via the LINE A connector

LINE B () : When monitoring a signal via the LINE B connector

⑤ System switch

Switches the colour system when a video signal is input.

PAL () : For PAL colour system

SECAM () : For SECAM colour system

⑥ EXT. SYNC switch

Switches the sync signal.

() : Internal sync

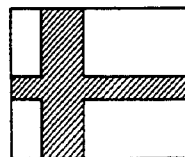
() : External sync (using sync signal input to the rear panel's LINE B/EXT. SYNC connector)

⑦ PULSE CROSS switch

To check the retrace period (sync signal) by delaying the phase of the input signal.

OFF () : For normal picture

ON () : For retrace period check display



⑧ COLOUR MONO switch

Switches picture between colour and monochrome for checking white balance, etc.

() : For a colour picture

() : For a monochrome picture

⑨ UNDER SCAN switch

Press to switch the scanning size on the screen.

() : for overscanning

() : for underscanning

⑩ NORMAL BLUE switch

Switches the picture between normal and monochrome blue, for checking and adjusting the CHROMA.

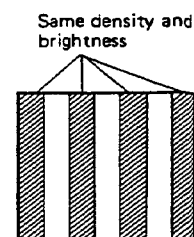
() : Normal picture

() : Monochrome blue picture

Adjusting procedure

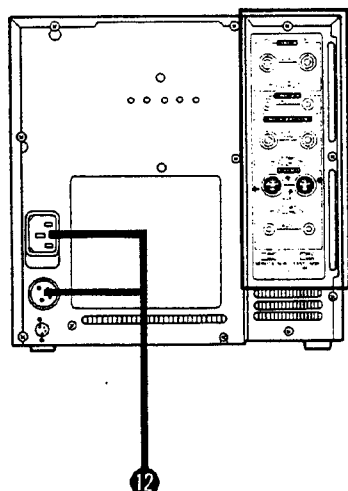
(1) Input the colour bar signal to display a monochrome blue picture.

(2) Turn the CHROMA control so that all blue bars have the same density and brightness.



Location of Terminals

Rear Panel

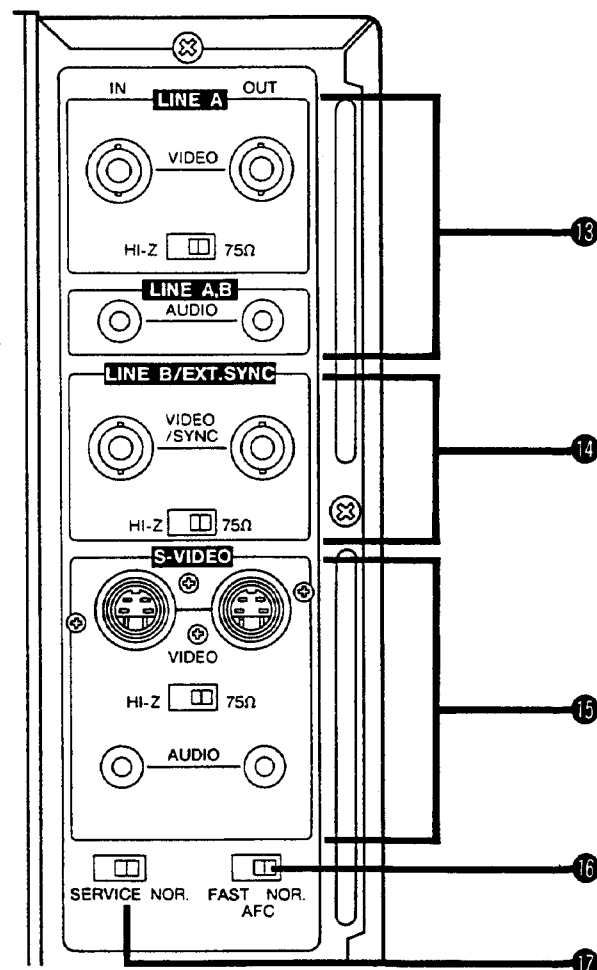


11 POWER switch/indicator

Pressing this switch turns the power on; the indicator lights. Pressing this switch again turns the power off; the indicator goes off.

When a DC battery is used with the monitor, as it becomes exhausted, the POWER indicator changes from green through orange to red.

When the POWER indicator turns red, the power turns off automatically; press the POWER switch to switch off and then replace the battery with a new one.



Rear Panel

12 Power input connectors

Connect the AC IN connector to an AC outlet with the provided power cord. Connect the DC IN 12 V connector to a DC 12 V power source.

13 LINE A connectors/Termination switch

Input connectors for composite video and audio signals and output connectors for bridge-connected signals.

IN : When inputting a signal

OUT : For bridged connection

Setting the termination switch

75 Ω : When there is only an input signal

HI-Z : For bridged connection

14 LINE B/EXT. SYNC connector/Termination switch

Input connector for a composite video or sync signal. The IN and OUT connectors are bridge-connected.

IN : When inputting signals

OUT : For bridged connection

Setting the termination switch

75 Ω : When there are only input signals

HI-Z : For bridged connection

15 S-VIDEO connectors/Termination switch

Input connectors for Y/C separate video and audio signals and output connectors for bridge-connected signals.

IN : When inputting signals

OUT : For bridged connection

Setting the termination switch

75 Ω : When there are only input signals

HI-Z : For bridged connection

16 AFC switch

Switches the AFC time constant of the horizontal sync circuitry to correct the skewed portion of the picture.

FAST : Fast mode (Smaller time constant)

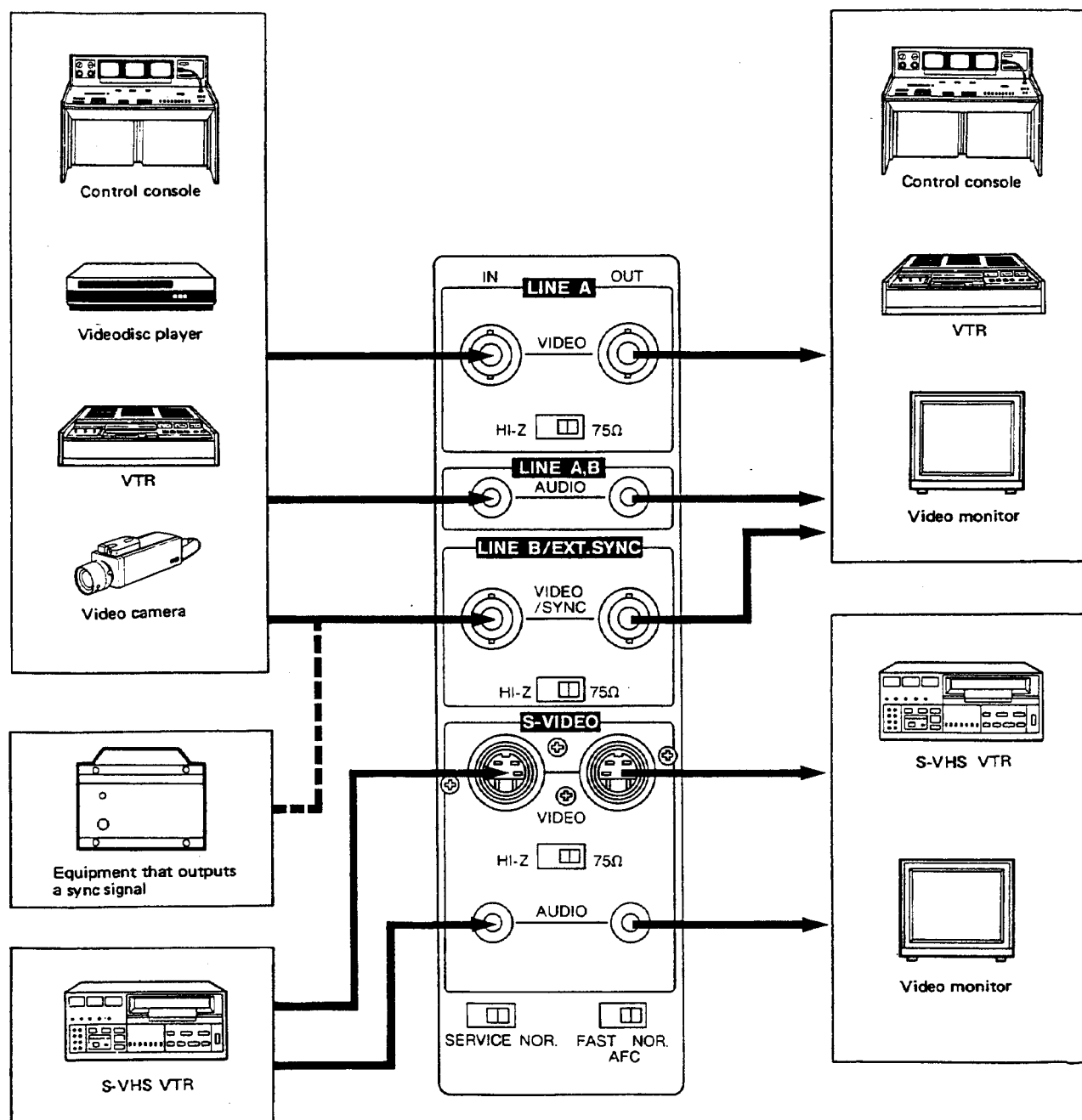
NOR. : Normal mode

17 SERVICE NOR. switch

Do not reset this switch. It is for service personnel only.

Connections

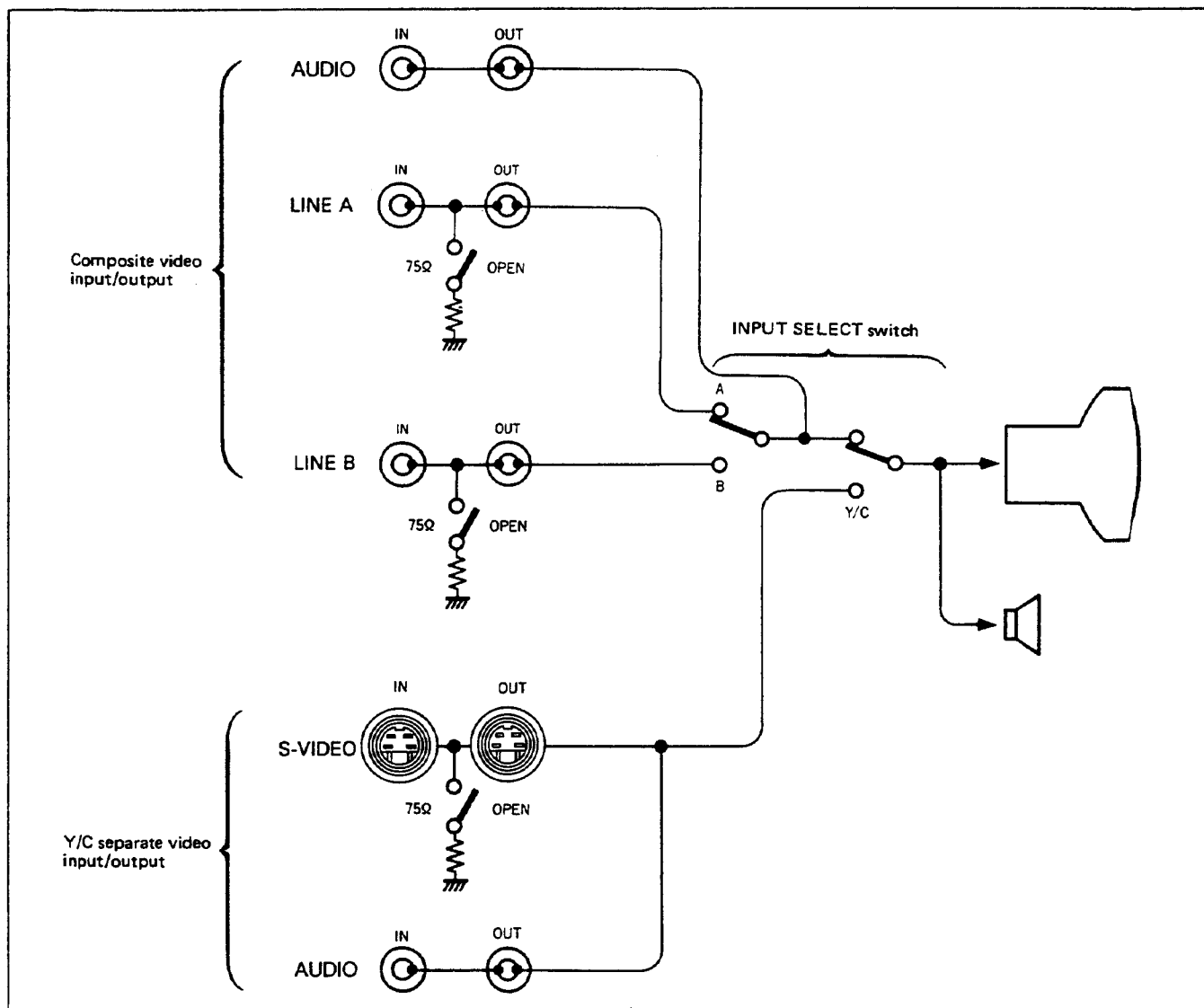
- Be sure to disconnect the power plug from the power source before connecting to other equipment.
- Also refer to the instruction manual of the equipment to be connected.



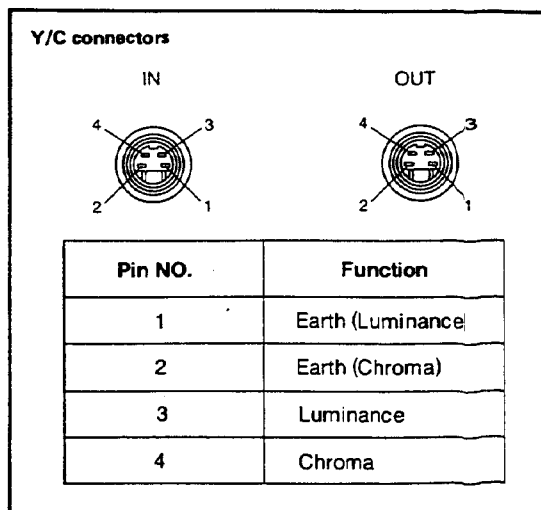
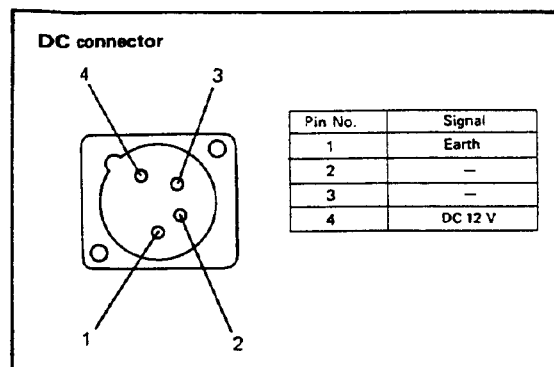
- When using any of the OUT connectors (bridged output), set its termination switch to "HI-Z".

Connections Outline Diagram

The following is an outline of the circuitry and connections, showing concepts. It is not a circuit diagram.



Pin Assignment



Disassembly Instructions

WARNING

1. Before disassembly, remove the AC plug from the wall outlet.
2. When turning over a P.C. board to adjust it, be sure to lay on insulating material under it in order to prevent shorting.
3. P.C. boards and wires should not be pulled forcibly, but be handled carefully.
4. Printed boards and connectors should be handled with care-avoid handling them forcibly!

1. Removal of the TOP COVER

- (1) Remove the 2 screws ⑧ shown in Fig. 1.
- (2) Remove the 3 screws ⑨.
- (3) Slightly pull backward as shown by the arrow and remove the top cover.

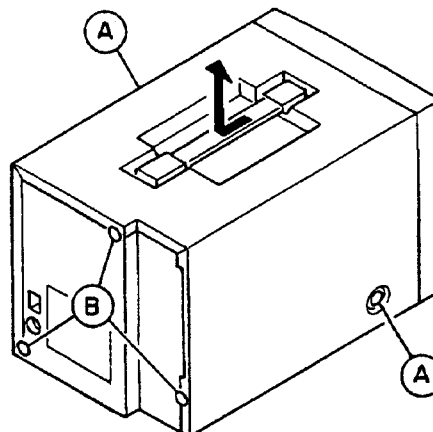


Fig. 1

2. Removal of the REAR COVER

- (1) Remove the top cover.
- (2) Remove the 2 screws ⑩ shown in Fig. 2.
- (3) Loosen the 3 screws ⑪.
- (4) Slightly slide the rear cover in the direction of the arrow and remove it.

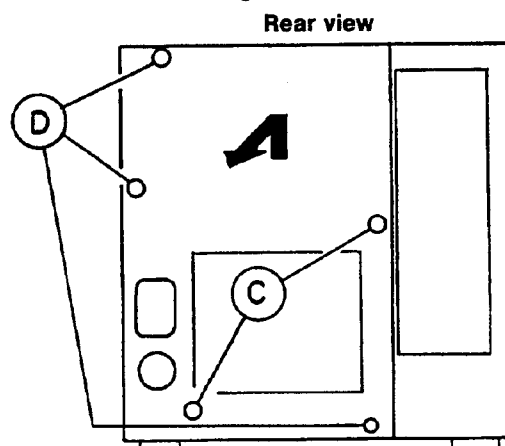


Fig. 2

3. Removal of the SIGNAL PC BOARD ASSEMBLY

- (1) Remove the 3 screws ⑫ shown in Fig. 3.
- (2) Open the signal PC board assembly towards yourself as shown by the arrow.
- (3) Grasp at the position of arrows ① and pull in the direction of arrow ② to remove the signal PC board assembly. (Removing the hinge connectors one by one facilitates the removal.)

(Fig. 4)

Side view

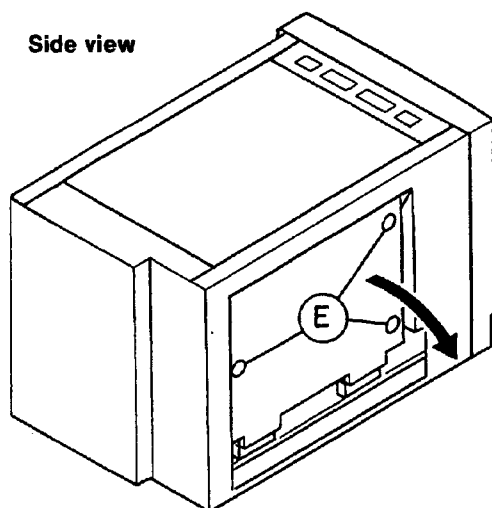


Fig. 3

Side view

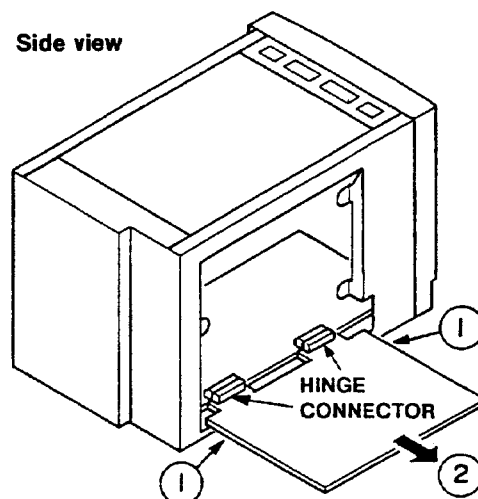


Fig. 4

4. Checking the DEF. PC BOARD ASSEMBLY

- (1) Place the set on its side as shown in Fig. 5. At this time, in order not to cause scratches on the top cover, place a cloth under the set.
- (2) Remove the 6 screws ⑥ and remove the bottom cover.

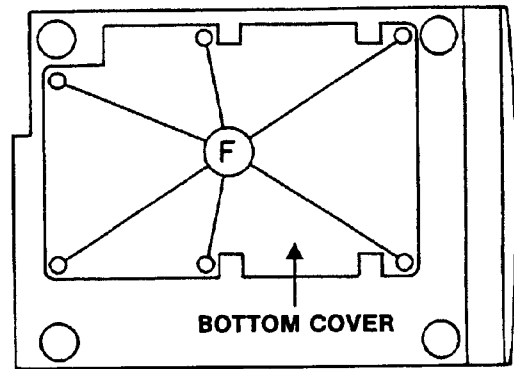


Fig. 5

5. Removal of the DEF. PC BOARD ASSEMBLY

- (1) Remove the 3 screws ③ of Fig. 6 to remove the AV terminal.
- (2) Remove the screw ④ shown in Fig. 7.
- (3) Remove the CRT SOCKET PC BOARD, wires of the DEF. YOKE and the HVT and other wires as well.
- (4) Pull the DEF. PC BOARD ASSEMBLY toward you and remove it. (When replacing the DEF. PC BOARD ASSEMBLY to its original position, confirm that it is connected to the connector of the CONTROL PC BOARD ASSEMBLY.)

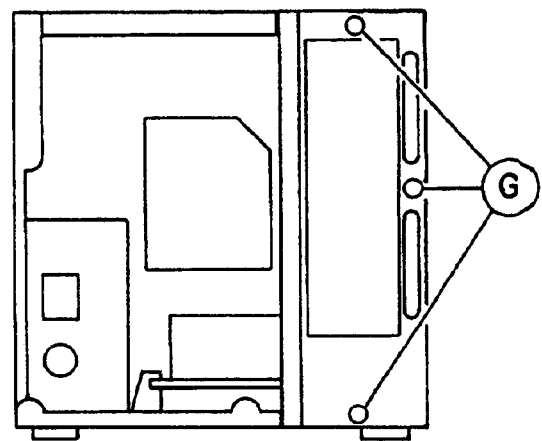
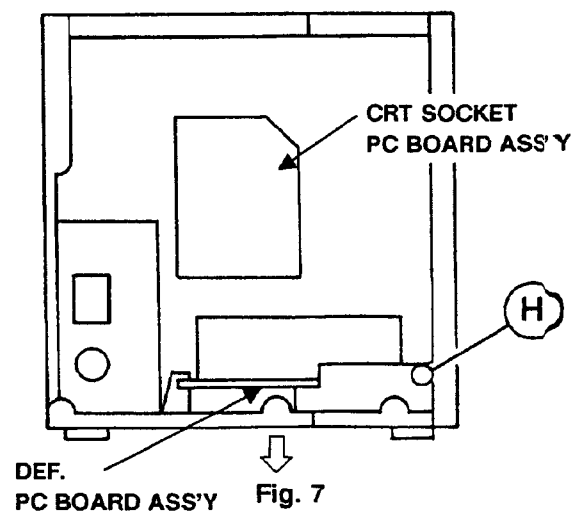


Fig. 6



6. Removal of the POWER SUPPLY ASSEMBLY

- (1) Remove the 2 screws ① shown in Fig. 8.
- (2) Slight lift up the AC input side of the POWER SUPPLY ASSEMBLY and slide it in the direction of the arrow to remove it.

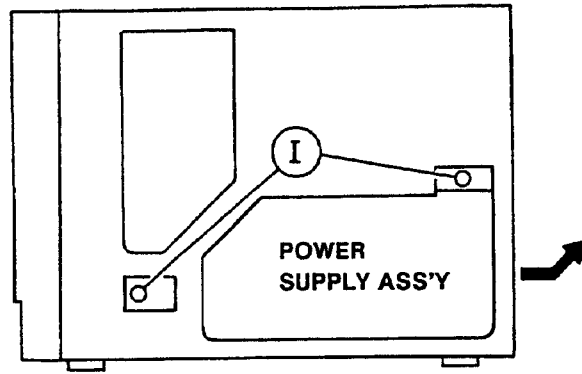


Fig. 8

7. Removal of the ESCUTCHEON

- (1) Remove the top cover.
- (2) Remove the 4 screws ① shown in Fig. 9.
- (3) Remove the escutcheon in the direction of the arrow.

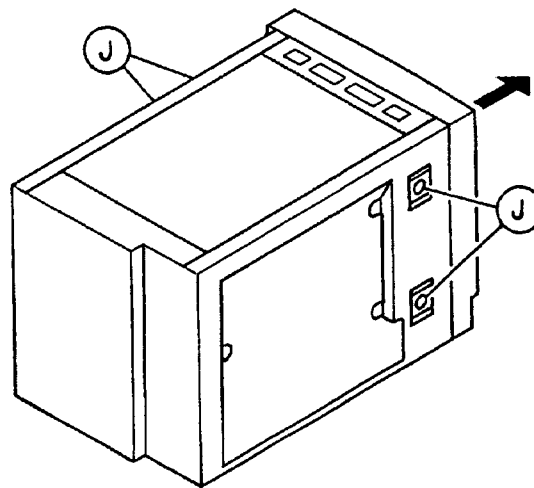


Fig. 9

8. Removal of the CRT

- (1) After removing the escutcheon, remove the 4 nuts attaching the CRT.

9. Removal of the CONTROL PC BOARD ASSEMBLY

- (1) After removing the escutcheon, remove the 2 screws ② shown in Fig. 10.

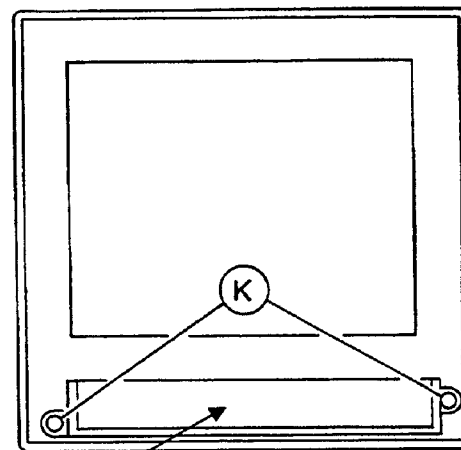
CONTROL
PC BOARD ASS'Y

Fig. 10

•WIRE CLAMPING AND CABLE TIES

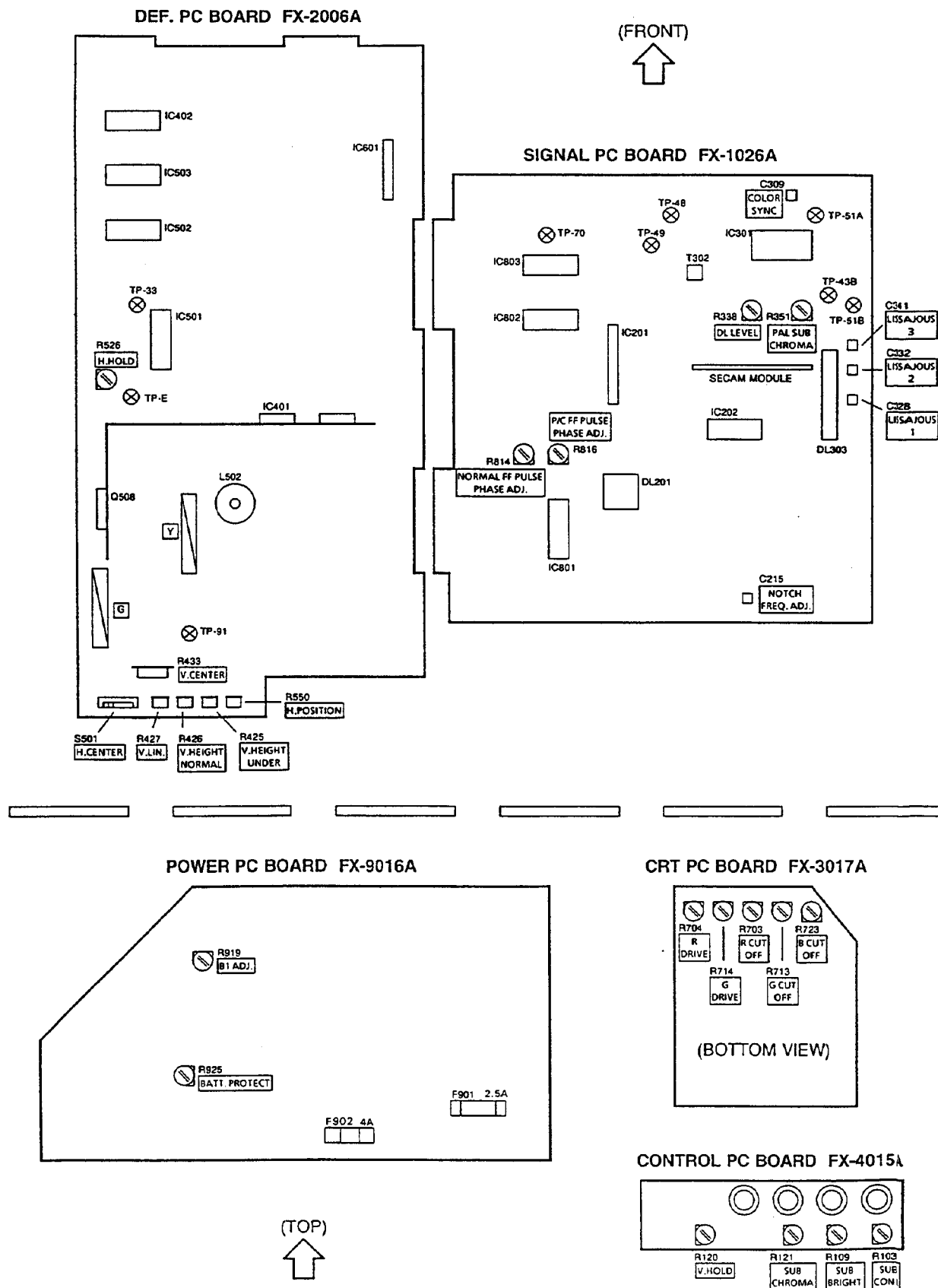
Be sure to clamp the wire.

Never remove the cable tie used for tying the wires together.

Should it be inadvertently removed, be sure to tie the wires with a new cable tie.

Measurements and Adjustments

Location of test points and controls



PRIOR TO STARTING ADJUSTMENT

- Perform sufficient warm-up of the TV set and testers.
(for 30 minutes or more).
- Unless specified otherwise specially in [ADJUSTING STEP] given below, perform adjustment after setting the switches and VRs on the front panel to the following positions:

UNDER SCAN ☐ : (☒) Over scan
 NORMAL BLUE : (☒) Normal picture
 PULSE CROSS ☒ : (☒) Normal picture
 COLOUR MONO : (☒) Colour picture
 SYSTEM : (☒) PAL
 EXT. SYNC : (☒) Internal sync
 INPUT SELECT : (☒) Line A/B
 INPUT SELECT : (☒) Line A
 CONTRAST : (☒) Click position
 BRIGHTNESS : Click position

CHROMA : CLICK position
 VOLUME : MIN. position



- Regarding the list of the layout of adjusted parts, refer to [ALIGNMENT LOCATION] in [SCHEMATIC DIAGRAM].

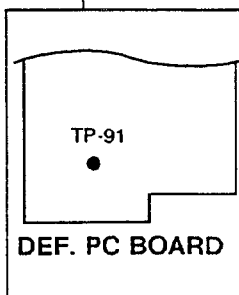
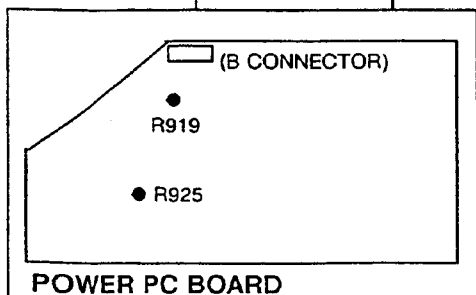
TOOLS AND FIXTURES FOR ADJUSTMENT

- DC voltmeter or digital voltmeter
- Oscilloscope
- Pattern generator (PAL/SECAM)
• The signal should be input to INPUT A(VIDEO).
- TV Color analyzer
• Adjustment is possible without it. If available, however, further accurate adjustment is possible.
- Short jumper
- De-magnetizer
- DC power supply (12V 5A)

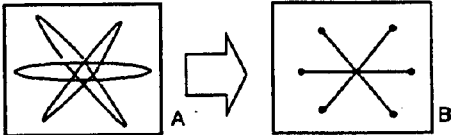
ADJUSTING STEP

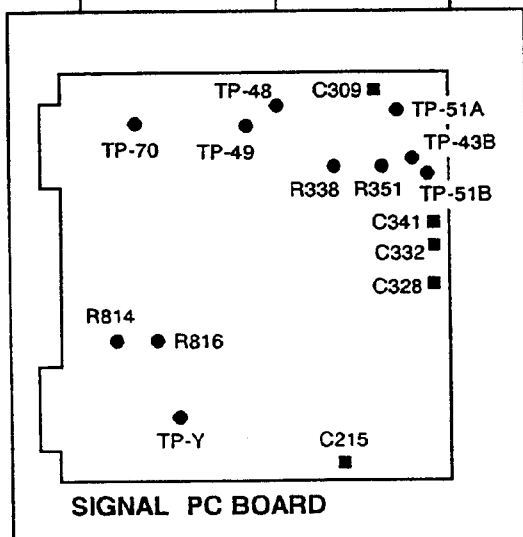
POWER PC BOARD ASS'Y

Item	Measuring instrument	Test point	Adjustment part	Description
Adjustment of B1 VOLTAGE (B1 POWER SUPPLY)	PATTERN GENERATOR DC VOLTMETER or DIGITAL VOLTMETER	TP-91 (DEF. PC BOARD) TP-E()	R919 (B1 ADJUSTMENT)	1. Input the black field pattern signal. 2. Adjust the B1 ADJUSTMENT VR (R919) so that the voltage between TP-91 (DEF. PC BOARD) and TP-E() becomes DC 30V. 3. Confirm that the B1 voltage scarcely changes even when the input signal has been changed.
Adjustment of BATTERY PROTECTOR CIRCUIT	PATTERN GENERATOR DC VOLTMETER or DIGITAL VOLTMETER DC POWER SUPPLY		R925 (BATTERY PROTECTOR VR)	1. Input the black field pattern signal. 2. Turn the BATTERY PROTECTOR VR (R925) as far as possible to the right. 3. Apply 12V DC to the DC 12V terminal of the set. 4. Set the power switch of the set to ON and confirm that the black field pattern appears (the power indicator lights in green). 5. Set the DC input voltage for the set to 10.5V \pm 0.1V DC. 6. Slowly turn the BATTERY PROTECTOR VR (R925) to the left side, and stop turning when the power indicator has turned from green through orange to red. At this time, the operation of the set will stop. 7. Set the power switch of the set to OFF. (The protection circuit will be set.) 8. Set the DC input voltage of the set to the regular voltage of 12V. 9. Set the power switch of the set to ON again. 10. Confirm that the operation of the set is normal. 11. Gradually lower the DC input voltage of the set from 12V, and when it becomes 10.5V \pm 0.2V, confirm that the power indicator lights in red.

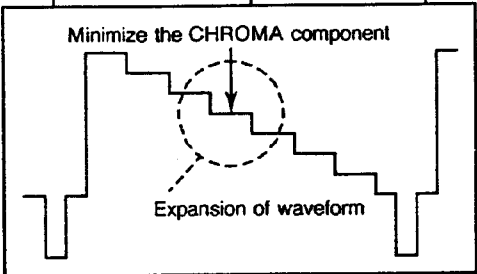
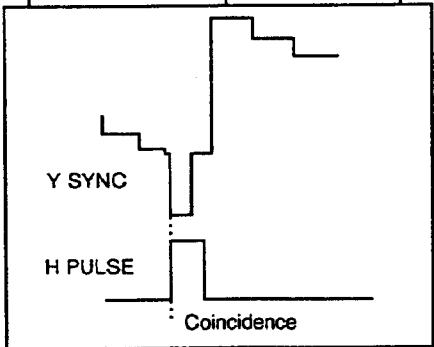


SIGNAL PC BOARD ASS'Y

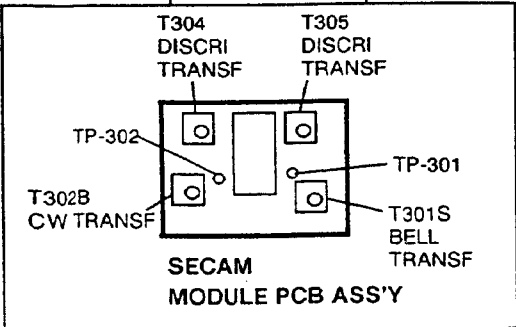
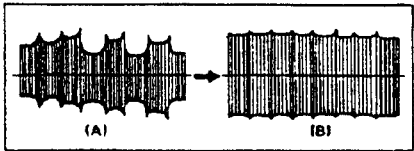
Item	Measuring instrument	Test point	Adjustment part	Description
Adjustment of COLOR SYNCHRONISM	PATTERN GENERATOR OSCILLOSCOPE SHORT JUMPER	TP-51A TP-51B TP-43B TP-E($\frac{1}{2}$)	C309	<ol style="list-style-type: none"> 1. Turn the SYSTEM SW to PAL. 2. Input the PAL color bar signal. 3. Connect TP-51A and TP-51B with a short jumper. 4. Connect TP-43B and TP-E ($\frac{1}{2}$) with a short jumper. 5. Adjust the COLOR SYNC. (C309) to a position where the color changes from a striped pattern to a color bar and remains at a standstill. 6. Remove the connected short jumper. 7. Make sure that the color synchronism is not collapsed and instantaneously led in when returned to the color bar signal again after changing the input select switch.
Adjustment of PAL CHROMA	PATTERN GENERATOR OSCILLOSCOPE	TP-48 TP-49	R338 (DL LEVEL) C332 C341 C328 C309	<ol style="list-style-type: none"> 1. Turn the SYSTEM SW to PAL. 2. Input the PAL color bar signal. 3. Connect the oscilloscope to TP-48 and TP-49, and plot the X-Y coordinates. 4. Adjust with DL LEVEL VR (R338) and C332 C341 so that the waveforms are the shapes shown from A to B in the chart below. <div style="text-align: center;">  </div> <ol style="list-style-type: none"> 5. When it is not possible to adjust with the R338 C332 C341, adjust with C328. 6. Input the half color bar. 7. Adjust with C309 so that the color at the center section under the color bar is at minimum.



SIGNAL PC BOARD ASS'Y

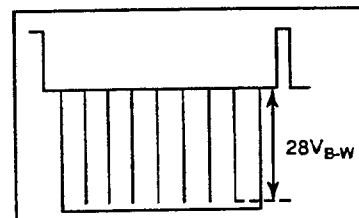
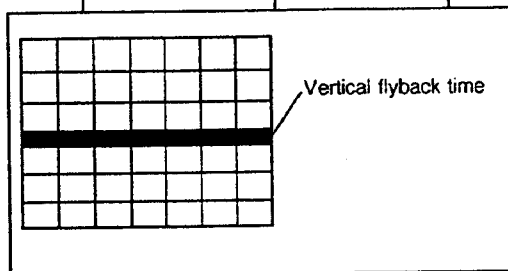
Item	Measuring instrument	Test point	Adjustment part	Description
Adjustment of NOCTH CIRCUIT	PATTERN GENERATOR OSCILLOSCOPE	TP-Y	C215	<ol style="list-style-type: none"> 1. Turn the SYSTEM SW to SECAM. 2. Input the SECAM color bar signal. 3. Connect the oscilloscope between TP-Y and TP-E. In case the waveform can be expanded by the oscilloscope, expand the waveform to allow easy adjustment. 4. Adjust the C215 so that the CHROMA component becomes minimum.
				
Adjustment of H PULSE	PATTERN GENERATOR OSCILLOSCOPE	TP-Y TP-70	R814 R816(P/C)	<ol style="list-style-type: none"> 1. Turn the SYSTEM SW to PAL. 2. Input the PAL color bar signal. 3. Connect the oscilloscope to TP-Y and TP-70 Pin, set to the dual-trace and increase the SYNC section. 4. Adjust with R814 so that the SYNC forward line of the Y signal and the start of the H PULSE coincide. 5. Confirm that the waveform phase dose not slip even when the pulse cross SW is pressed. 6. If the phase slips,use R816 to adjust so that the H PULSE dose not come to the left side (leading phase) of the SYNC of Y signal.
				

SECAM MODULE CIRCUIT

Item	Measuring instrument	Test point	Adjustment part	Description
Adjustment of SECAM CHROMA	PATTERN GENERATOR OSCILLOSCOPE DC VOLTMETER	TP-301 TP-302	T301S (BELL TRANSF.) T302B (CW TRANSF.) T304 T305 (DISCRI TRANSF.)	<ol style="list-style-type: none"> 1. Turn the SYSTEM SW to SECAM. 2. Input the SECAM color bar signal. 3. Connect an oscilloscope to pin ⑩ (or TP-301) of IC301. 4. Adjust the BELL TRANSF. (T301S) for flat waveform as altered to figure (B) from (A).
				 <ol style="list-style-type: none"> 5. Connect a voltmeter to pin ⑪ (or TP-302) of IC301. 6. Adjust CW TRANSF. (T302B) for minimum DC voltage. 7. Adjust the DISCRI TRANSF. (T304 & T305) until colors are eliminated from the black-and-white (or white) sections of colour bars on the screen.

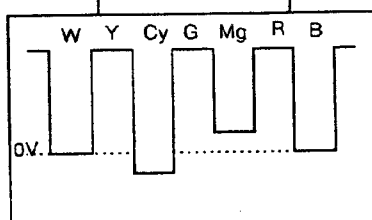
CONTROL PC BOARD ASS'Y

Item	Measuring instrument	Test point	Adjustment part	Description
Adjustment of SUB BRIGHT	PATTERN GENERATOR		R109 (SUB BRIGHT)	<ul style="list-style-type: none"> Continue running for 30 minutes or more. Set the CONTRAST and BRIGHT VRs on the front panel to the clicking position. <ol style="list-style-type: none"> Input the cross hatch signal. Turn the V. HOLD VR to display the vertical flyback time and let it remain at a standstill. Adjust the SUB BRIGHT VR (R109) in front of the position where the vertical flyback time becomes black (In this case, be careful so that it will not become too bright). Adjust the vertical synchronism with the V. HOLD VR.
Adjustment of SUB CONTRAST	PATTERN GENERATOR OSCILLOSCOPE	TP-47B TP-E	R103 (SUB CONT.)	<ul style="list-style-type: none"> Set the CONTRAST and BRIGHT VRs on the front panel to the clicking position. <ol style="list-style-type: none"> Input the cross hatch signal. Connect the oscilloscope between TP-47B and TP-E on the CRT SOCKET PCB. Adjust the SUB CONT. VR (R103) so that the voltage of the waveform becomes $28V_{B-W}$.

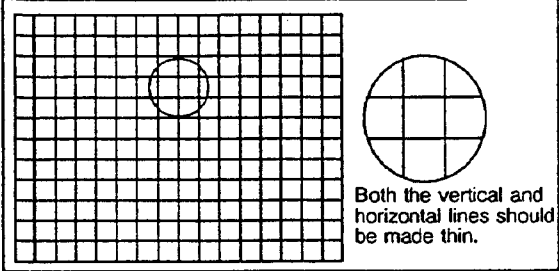
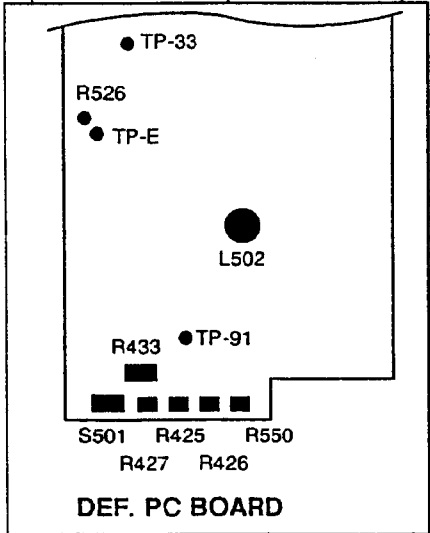


CONTROL PC BOARD ASS'Y & SIGNAL PC BOARD ASS'Y

Item	Measuring instrument	Test point	Adjustment part	Description
Adjustment of SUB CHROMA	PATTERN GENERATOR OSCILLOSCOPE	TP-47B TP-E	CONTROL PC BOARD ASS'Y R121 (SUB CHROMA) SIGNAL PC BOARD ASS'Y R351 (PAL SUB CHROMA)	<ul style="list-style-type: none"> Turn the CHROMA VR on the front panel to the click position. <ol style="list-style-type: none"> Turn the SYSTEM SW to SECAM. Input the SECAM color bar signal. Connect TP-47B of the CRT SOCKET PCB to the oscilloscope. Turn SUB CHROMA (R121) to adjust the white and blue levels. Return the SYSTEM SW to PAL. Input the PAL color bar signal. Turn PAL SUB CHROMA (R351) to set the difference of white and blue to 0V.

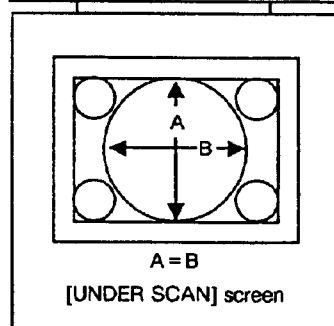
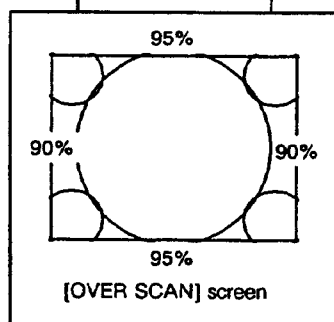


DEF. PC BOARD ASS'Y

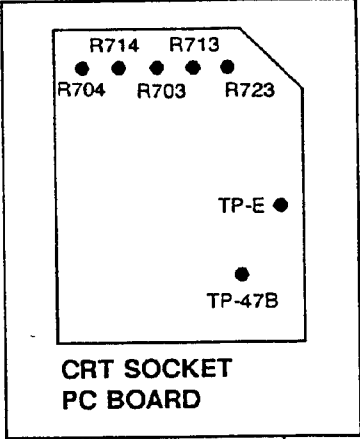
Item	Measuring instrument	Test point	Adjustment part	Description
Adjustment of FOCUS	PATTERN GENERATOR		FOCUS VR	<ol style="list-style-type: none"> 1. Input the cross hatch signal. 2. Adjust the FOCUS VR to a position where the vertical and horizontal lines of cross hatch become thinnest and clearest. <p>Note: Be sure to perform final adjustment of the convergence after adjustment of focus, since the convergence will be changed whenever the focus has been adjusted.</p>
				
Adjustment of HORIZONTAL HOLD	PATTERN GENERATOR SHORT JUMPER	TP-33A TP-E	R526 (H HOLD)	<ul style="list-style-type: none"> • Set the CONTRAST VR on the front panel to the clicking position. <ol style="list-style-type: none"> 1. Input the color bar signal. 2. Connect TP-33A and TP-E with a short jumper. 3. Adjust the H. HOLD VR (R526) to a position where the image remains at a standstill without flowing horizontally. <ul style="list-style-type: none"> • Namely, adjust the VR to an intermediate position where the image flows horizontally. 4. Remove the connected short jumper. 5. Make sure that the color synchronism is not collapsed and normal image appears instantaneously when returned to the color bar signal again after changing the input select switch.
				

DEF. PC BOARD ASS'Y

Item	Measuring instrument	Test point	Adjustment part	Description
Adjustment of H. WIDTH and H. CENTER	PATTERN GENERATOR		L502(H. WIDTH COIL) S501 (H CENTER) R550 (H POSITION)	<ol style="list-style-type: none"> 1. Input the monoscope signal or cross hatch signal. 2. Select the OVER SCAN screen with the UNDER SCAN switch on the front panel. 3. With the H. WIDTH COIL (L502) and H. CENTER switch (S501), perform adjustment so that 90% of monoscope pattern (cross hatch) is displayed on the screen. 4. Select the UNDER SCAN screen with the UNDER SCAN switch on the front panel. 5. In case the image is chipped off from the raster, adjust the H. POSITION VR (R550). 6. Select the OVER SCAN screen with the UNDER SCAN switch on the front panel.
Adjustment of V. HEIGHT V. CENTER and V. LINEARITY	PATTERN GENERATOR		R425(V.HEIGH T NORMAL) R433(V.CENTE R) R427(V.LIN.) R426(V.HEIGH T UNDER)	<ol style="list-style-type: none"> 1. Input the monoscope signal or cross hatch signal. 2. Select the OVER SCAN screen with the UNDER SCAN switch on the front panel. 3. Roughly adjust the V. HEIGHT NORMAL VR (R425) so that nearly all the monoscope pattern (cross hatch) is displayed on the screen. 4. With the V. HEIGHT NORMAL VR (R425) and V. CENTER VR (R433), perform adjustment so that 95% of the monoscope pattern (cross hatch) is displayed on the screen. 5. While turning the V. LIN. VR (R427), adjust the vertical linearity. 6. Repeat the Steps 3 - 5 as required. 7. Select the UNDER SCAN screen with the UNDER SCAN switch on the front panel. 8. Adjust the V. HEIGHT UNDER VR (R426) so that the vertical amplitude becomes $A = B$ (making the vertical and horizontal diameter the same). 9. Perform fine adjustment of the center and vertical linearity so that displacement of adjustment will not occur even if the SCAN switch on the front panel has been changed over. 10. Select the OVER SCAN screen with the UNDER SCAN switch on the front panel.

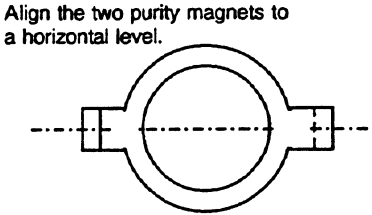
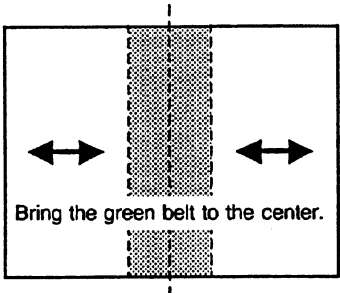
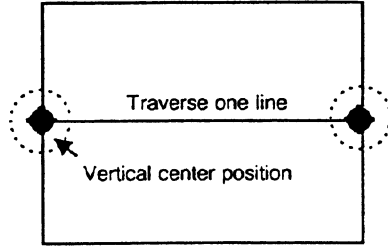


CRT SOCKET PC BOARD ASS'Y

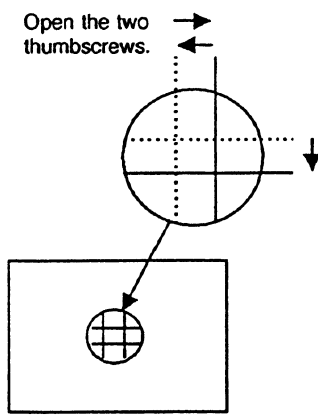
Item	Measuring instrument	Test point	Adjustment part	Description
Adjustment of WHITE BALANCE (CUTOFF)	PATTERN GENERATOR		R703 (R CUTOFF) R713 (G CUTOFF) R723 (B CUTOFF) SCREEN VR	<ul style="list-style-type: none"> Continue running for 10 minutes or more. <ol style="list-style-type: none"> Input the black field pattern signal. Turn the transverse one line SET UP switch (S204) on the rear surface over to the SET UP side. Turn the CUT OFF VRs (R703, R713 and R723) on the CRT SOCKET PCB fully in counterclockwise direction. While turning the SCREEN VR gradually in clockwise direction from full counterclockwise direction, search for the color appearing for the first time. Turn the CUT OFF VRs, with which the color has appeared first in the Step 4, slightly in clockwise direction. By turning the CUT OFF VRs for the other two colors in clockwise direction, adjust the intensity of the three shining colors so that the transverse single line look white. Return the transverse single line SET UP switch (S204) to the NORMAL side.
				
Adjustment of WHITE BALANCE (DRIVE)	PATTERN GENERATOR		R704 (R DRIVE) R714 (G DRIVE)	<ul style="list-style-type: none"> Continue running for 30 minutes or more. This adjustment should be performed after Adjustment of WHITE BALANCE (CUTOFF). <ol style="list-style-type: none"> Input the white field pattern signal. Adjust the R and G DRIVE VRs (R704 and R714) on the CRT SOCKET PCB to a position where the entire screen becomes white. While turning the CONTRAST VR and BRIGHT VR on the front panel, make sure that the white balance is attained. <p>[In case monoscope signal and TV Color analyzer are available]</p> <ol style="list-style-type: none"> Input the monoscope signal. The light receiving unit of the TV Color analyzer will measure the color temperature at the center of the screen. Adjust the CONTRAST VR, R and G DRIVE VRs (R704 and R714) on the CRT SOCKET PCB to a position where the TV Color analyzer indicates a specified value. <ul style="list-style-type: none"> Color temperature : D6500°K (x=0.313, y=0.329) While turning the CONTRAST VR and BRIGHT VR on the front panel, make sure that the white balance is attained.

ADJUSTING STEP OF COLOR TONE

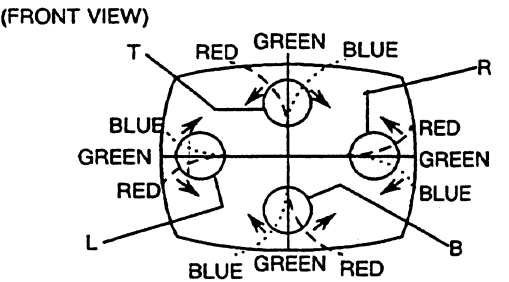
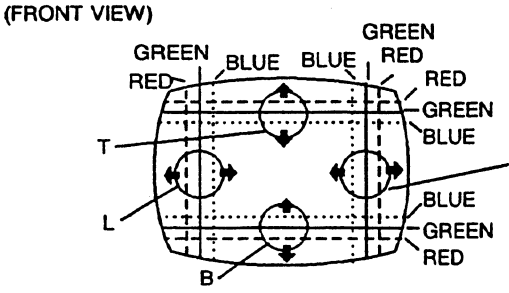
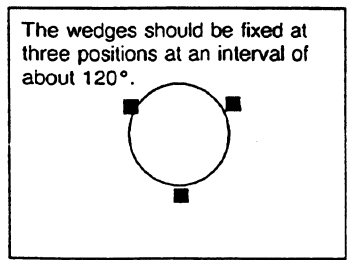
ADJUSTMENT OF PURITY

Adjustment Part	Description	Remarks
WEDGE	PRIOR TO STARTING ADJUSTMENT: <ol style="list-style-type: none"> 1. Remove the wedge being inserted in between the deflecting yoke. At this time, clear the trace of the wedge. 2. Peel of the adhesive attaching the six magnets and magnet lock. 3. Turn the magnet lock to the left so that the 6 magnets rotates. 4. Input the white field pattern signal. 5. Perform magnetic erasing of the CRT with a de-magnetizer. 6. Set the brightness and contrast to slightly higher levels, and perform warm-up roughly for 20 - 30 minutes. 	
PURITY MAGNET		
G CUTOFF VR		
R CUTOFF VR		
B CUTOFF VR		
SCREEN VR		
DEFLECTING YOKE		
Traverse one line SET UP switch	ADJUSTING STEP <ol style="list-style-type: none"> 1. By turning the G CUTOFF VR on the CRT SOCKET PC BOARD fully in clockwise direction and the R and B CUTOFF VR fully in counterclockwise direction, adjust the SCREEN VR to make the green screen visible. 2. After loosening the clamp screw of the deflecting yoke, pull the yoke fully backward, and let color shading appear in a vertical belt form. 3. Pile up the clicks of the two purity magnets alternately each other, and set them to a horizontal position as an initial. 4. While opening and closing or turning the clicks of the two purity magnets, perform adjustment so that the green vertical belt appears at the center of the screen. 5. By pushing out the deflecting yoke to the front side, position the yoke so that the entire screen becomes totally green (In this case, tentatively fix the deflecting yoke with a wedge so that the yoke is not moved). 6. Set the traverse one line SET UP switch to the SET UP side to display traverse one line on the screen. With the deflecting yoke, make the traverse one line horizontal and further close to the vertical center (Do not change the cross position of the deflecting yoke) 7. Return the transverse single line SET UP switch to the NORMAL side. 8. Confirm that the purity has been attained with regard to the red, blue and monicolor rasters. 	 <p>Align the two purity magnets to a horizontal level.</p>  <p>Bring the green belt to the center.</p>  <p>Traverse one line Vertical center position</p>

ADJUSTMENT OF STATIC CONVERGENCE

Adjustment Part	Description	Remarks
CONVERGENCE MAGNET	ADJUSTING STEP <ol style="list-style-type: none"> 1. Input the cross hatch signal. 2. Overlap the red and blue lines at the center of the screen with 4-pole magnet to turn the color to Magenta color (red/blue). 3. Next, overlap the Magenta color (red/blue) and green lines at the center of the screen with 6-pole magnet. 4. Repeat the Steps 2 and 3, and adjust the convergence of the vertical and horizontal lines at the center of the screen. 	 <p>Open the two thumbscrews.</p> <p>Turn together while maintaining the angle of the thumbscrews.</p>

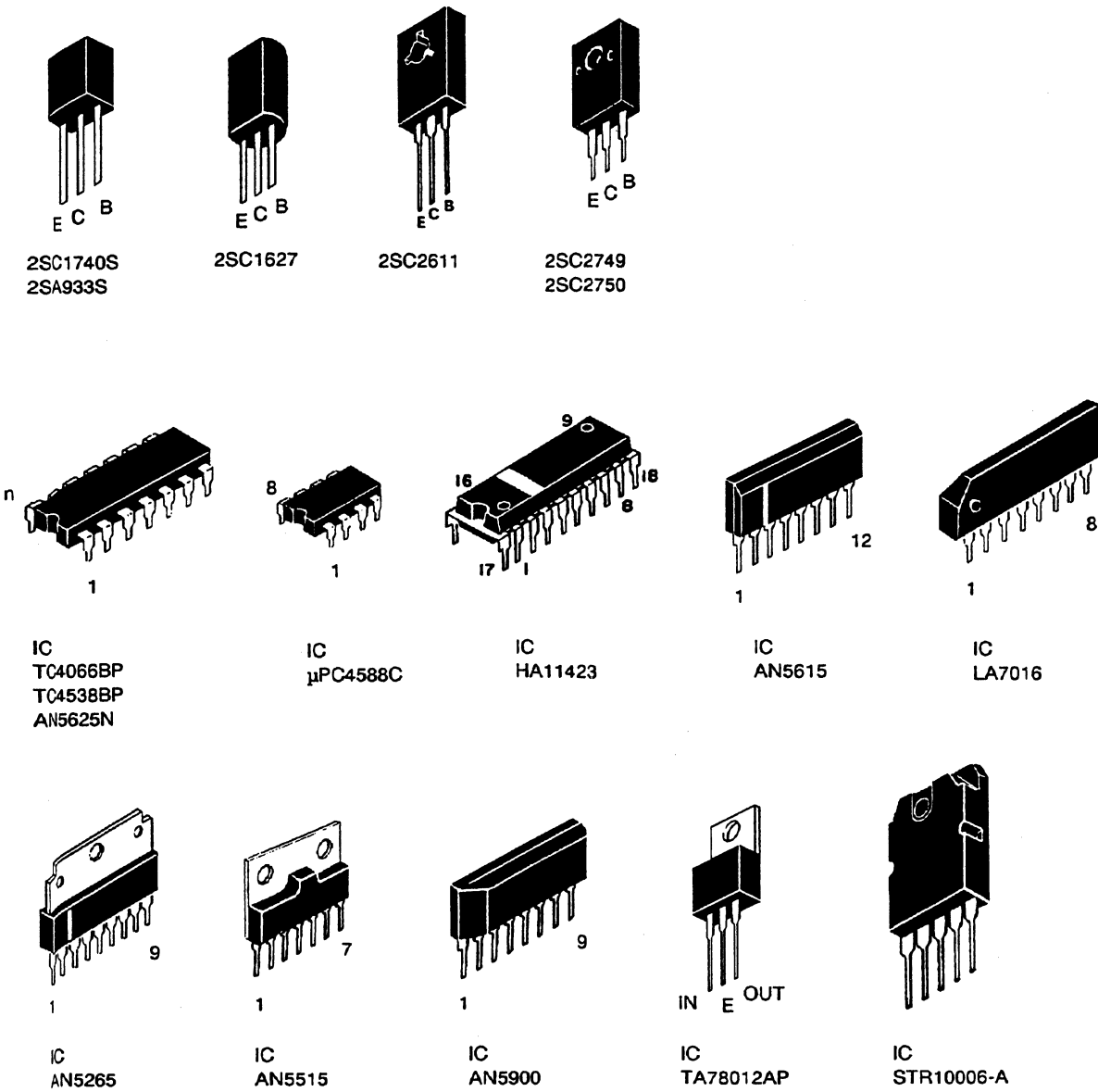
ADJUSTMENT OF DYNAMIC CONVERGENCE

Adjustment Part	Description	Remarks
	ADJUSTING STEP <ol style="list-style-type: none"> 1. Remove the wedge with which the deflecting yoke was temporarily fixed. 2. Oscillating the deflecting yoke up and down, set a convergence of points, L, R, T and B, on the screen and temporarily fix it with a wedge. 3. Maintaining that situation, oscillate the deflecting yoke right and left and set the convergence of points, L, R, T and B, on the screen. 4. Repeating 2 and 3, fix the position of the deflecting yoke with three wedges so as to produce the best condition for the convergence of points L, R, T and B, on the screen. 	<p>(FRONT VIEW)</p>  <p>Tilting the yoke upward will move the lines as shown with the arrows.</p> <p>(FRONT VIEW)</p>  <p>Tilting the yoke to the right will move the lines as shown with the arrows.</p> <p>The wedges should be fixed at three positions at an interval of about 120°.</p> 

AFTER COMPLETION OF PURITY-CONVERGENCE ADJUSTMENT

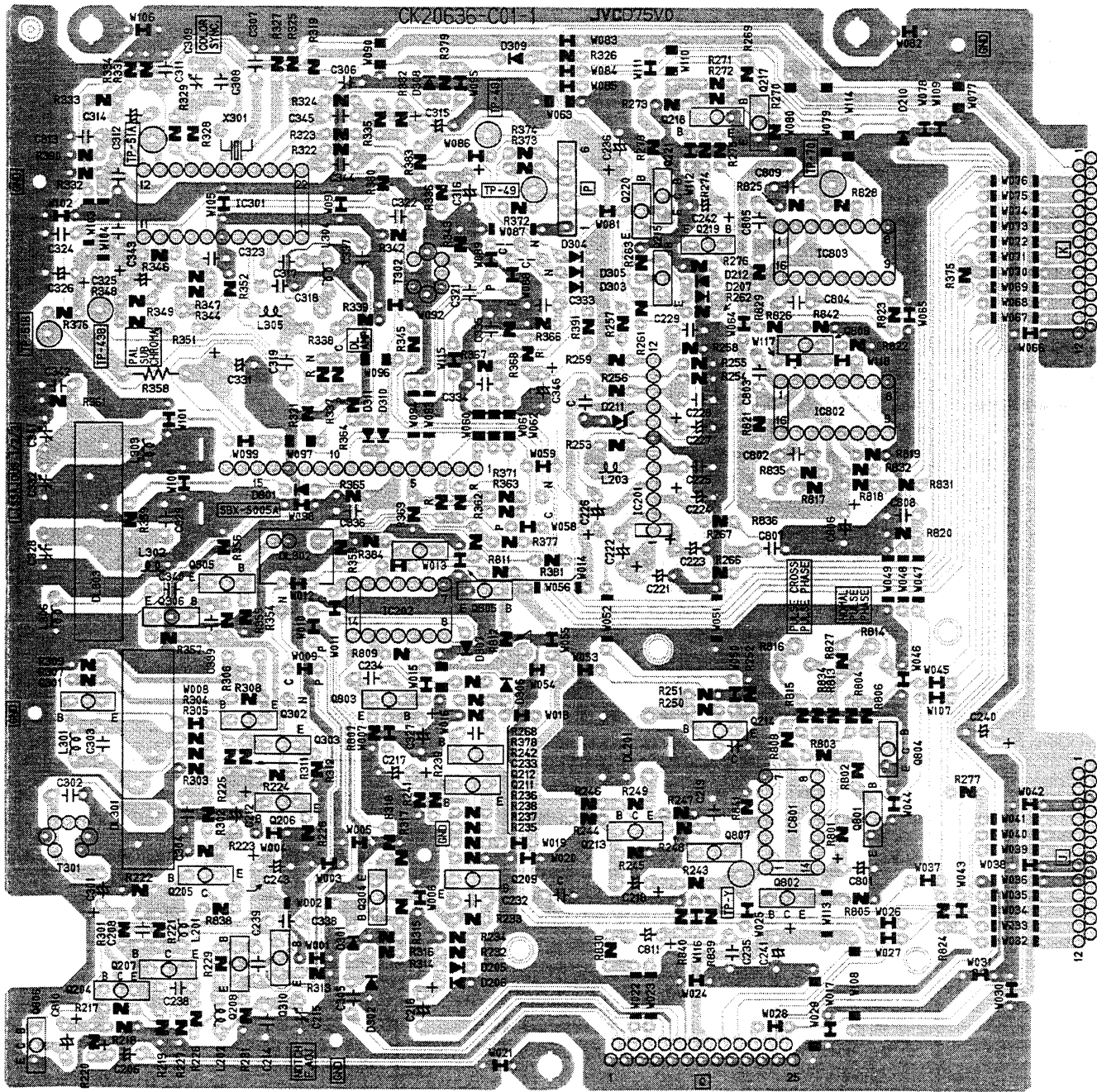
Adjustment Part	Description	Remarks
	<div><div>1. Fasten the clamp screw of the deflecting yoke tightly.</div><div>2. Coat the six magnets and magnet lock with lerchlock. Lerchlock Type name No. 3-C NET 200g (Manufacturer-Raihidden Kagaku Kabushikigaisha)</div><div>3. Coat silicon on the three wedges. Silicon Type name KE4866 NET 100g (Shinetsu Kagaku)</div></div>	

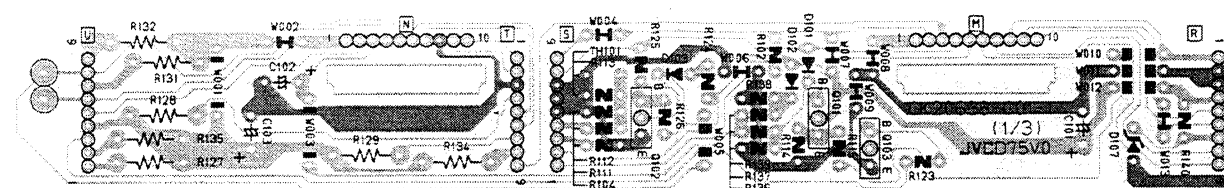
Terminal Guide of IC's and Transistors



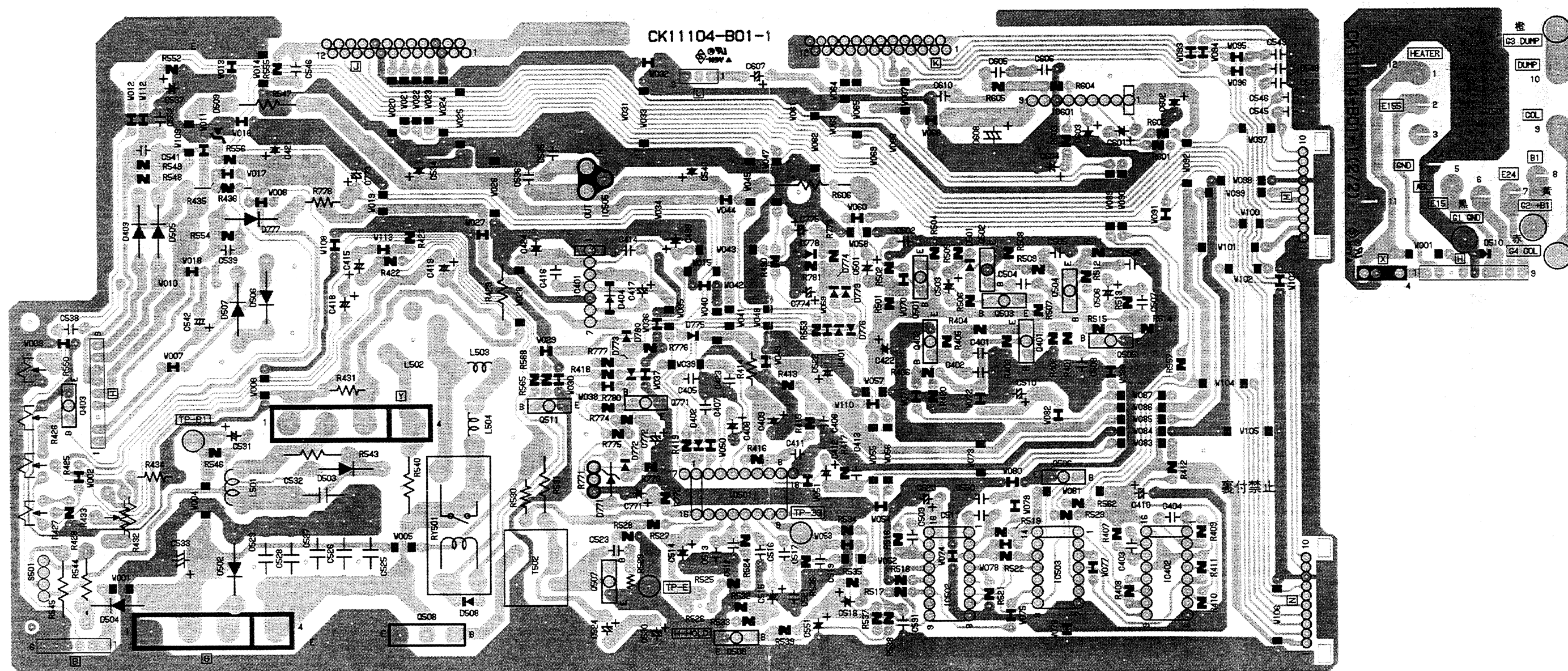
Circuit Boards

Signal P.C. Board

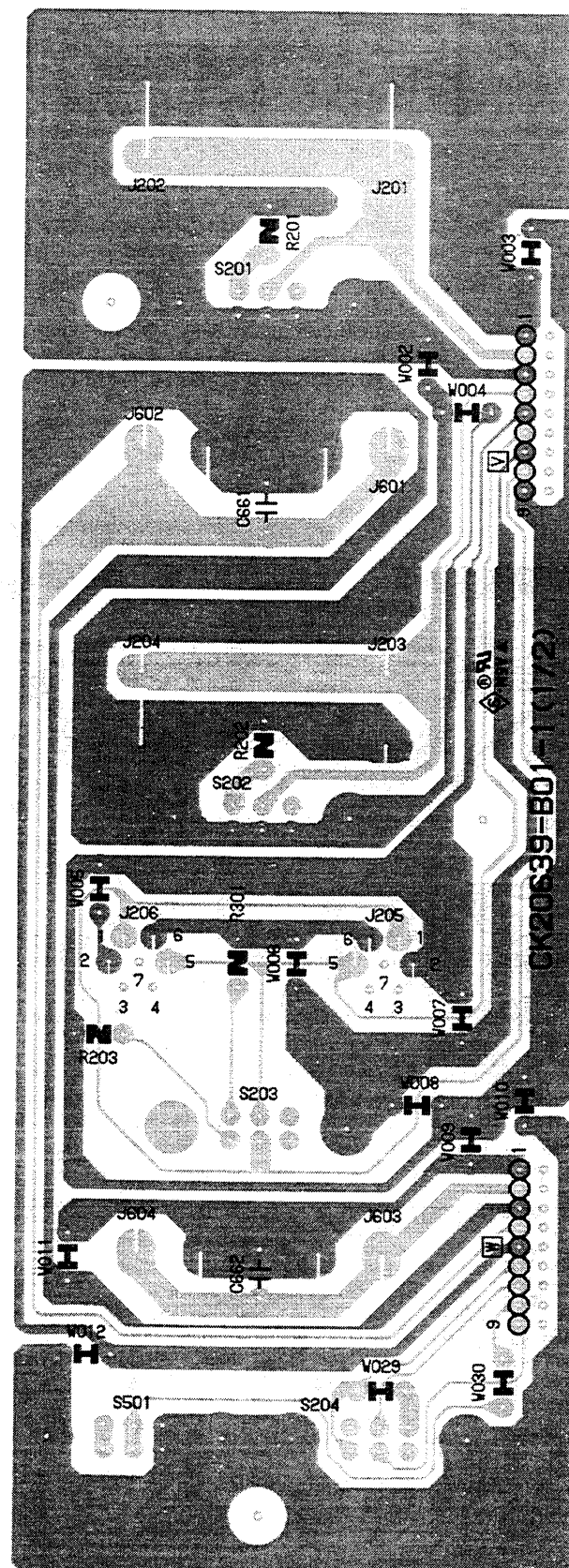
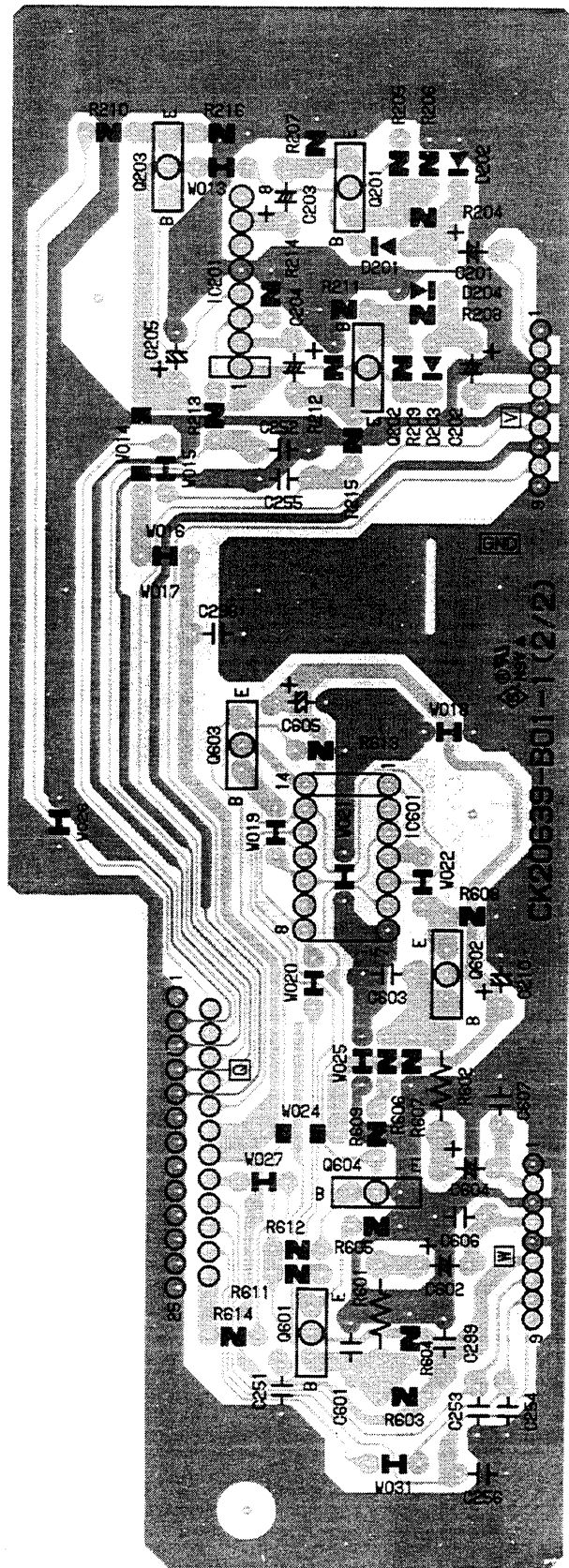




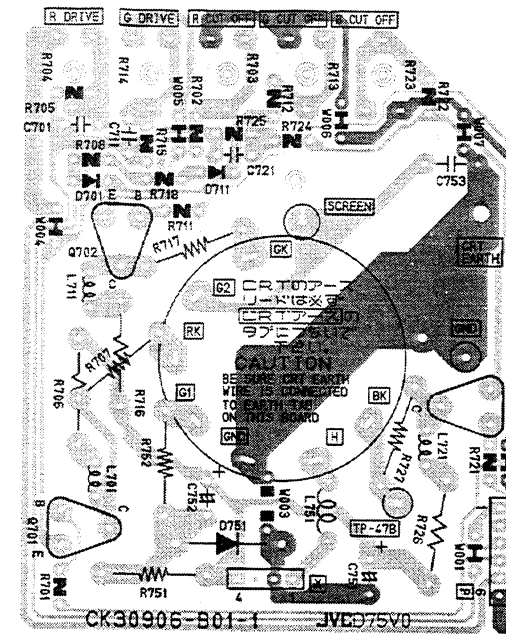
Def. P.C. Board



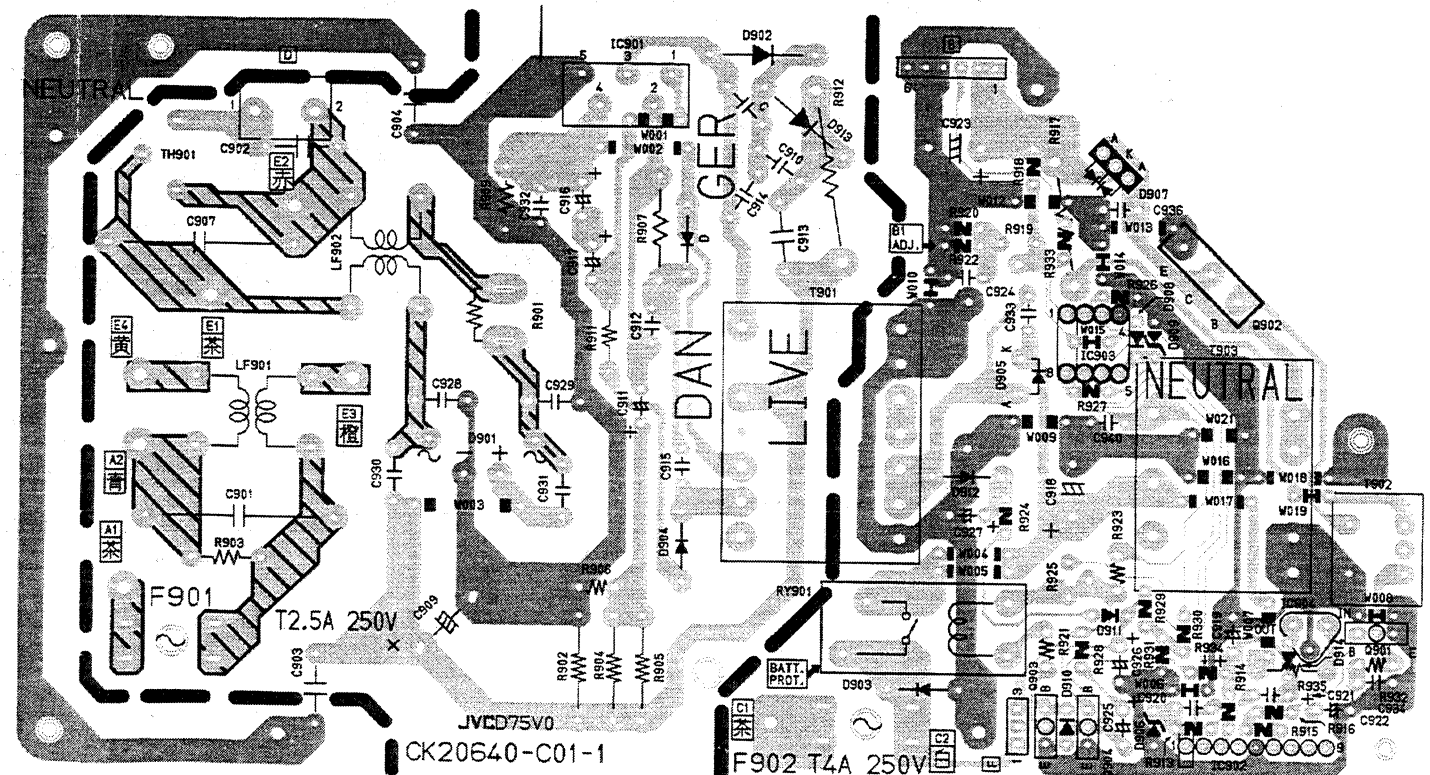
Input P.C. Board



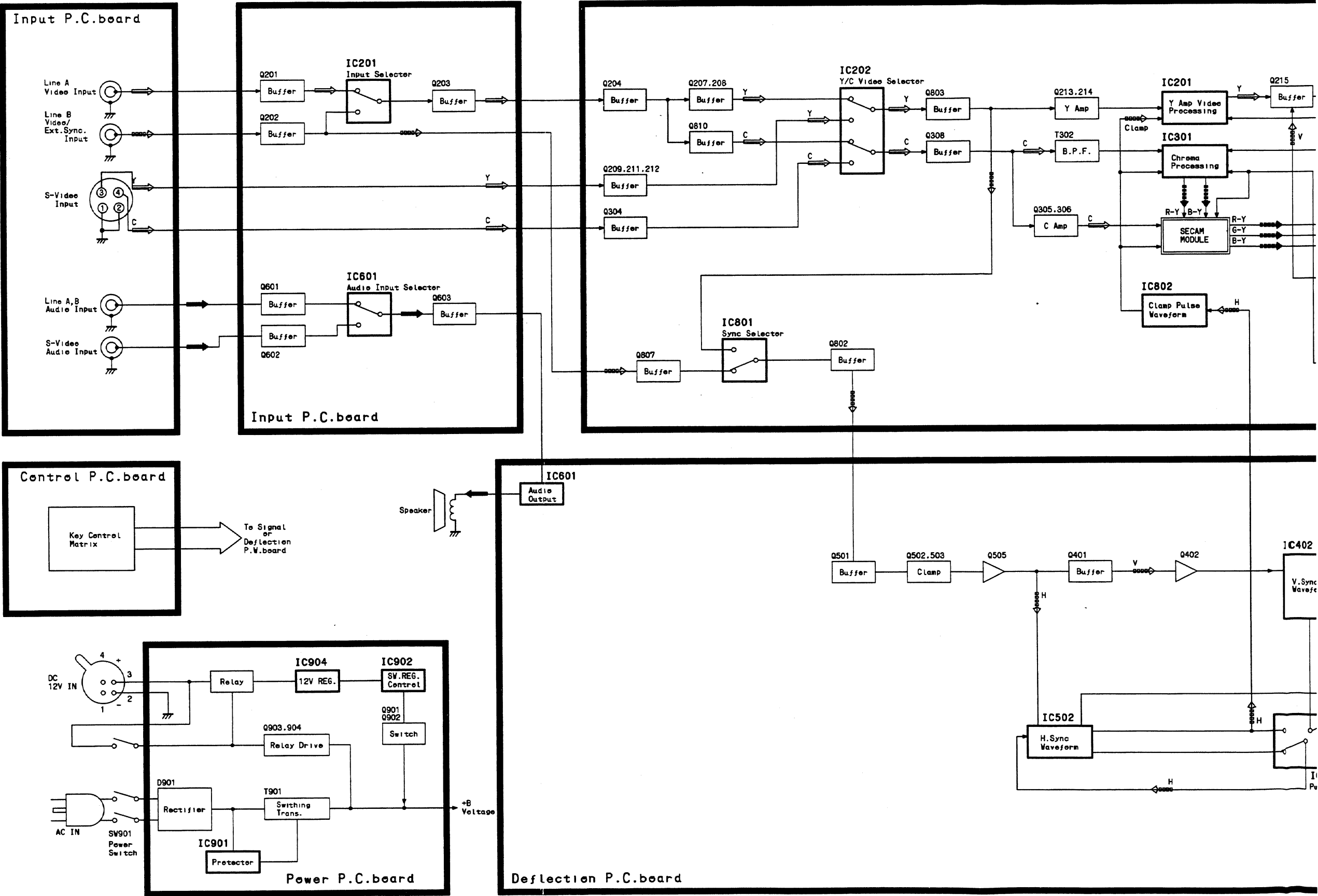
CRT Socket P.C. Board



Power P.C. Board



Block Diagram





Schematic Diagram

IMPORTANT SAFETY NOTICE

THE SHADED AREA ON THIS SCHEMATIC DIAGRAM INCORPORATES SPECIAL FEATURES IMPORTANT FOR PROTECTION FROM X-RADIATION, FIRE AND ELECTRICAL SHOCK HAZARDS. WHEN SERVICING, IT IS ESSENTIAL THAT ONLY MANUFACTURER'S SPECIFIED PARTS BE USED FOR THE CRITICAL COMPONENTS IN THE SHADED AREAS OF THE SCHEMATIC.

NOTICE

The voltage reading and waveform are measured at each point with a multi-meter and an oscilloscope while input a video signal (colour bar) through the video input terminal (INPUT A) on the monitor.



The measurements were made with each VR under the condition just after the shipment. The figures of the signal circuits may be more or less different after adjustments, so use the figures simply for reference.

Multimeter used
DC 20 kΩ/V
Given figures are all DC voltages.

Sweep speed of oscilloscope
H ⇒20μS/div
V ⇒5mS/div
Others ⇒Sweeping time is indicated

Since the schematic diagram is a standard one, the circuit and circuit constants may be subject to change for improvement without any notice.

SAFETY

FR () denotes a fusible resistor which operates as a fuse. When replacing fusible resistors and parts indicated with black shading () in the circuit diagrams, be sure to ensure safety by using designated parts.

As to other parts too, use designated parts to maintain safety and performance.

INDICATION OF PARTS SYMBOL

Inside board (Example) FX-1026A : R1209⇒R209

CIRCUIT DIAGRAM DISPLAY SYMBOLS

1. Resistor

- Resistance value
When no unit is provided : [Ω]
K : [kΩ]
M : [MΩ]
- Rated permissible power capacity
When no display is made : 1/6 [W]
Others : Display are provided
- Type
Without indication : Carbon resistor
OMR : Oxide metal film resistor
UNFR : Non-Flammable resistor
CMF,MFR : Coating metal film resistor
FR : Fusible resistor
*Composition resistor 1/2 [W] is indicated as "1/2S" or "Comp".

2. Capacitor

- Capacitance
Over 1 [pF] Below 1 [μF]
- Withstand voltage
No display : DC 50 [V]
Others : DC withstand voltage [V]
AC display : AC withstand voltage [V]
- Display of electrolytic capacitor is as follows.
(Example)
47/50⇒Capacity [μF] /withstand voltage [V]
*NP : Non-polar (or Bipolar) electrolytic capacitor.
- Type
No type display indication : Ceramic capacitor
MY : Mylar capacitor
MM : Metalized mylar capacitor
PP : Polypropylene capacitor
MPP : Metalized polypropylene capacitor
NP : Nonpolar electrolytic capacitor
BP : Bipolar electrolytic capacitor
TAN. : Tantalum capacitor

3. Coil





When no unit is displayed : [μH]

4. Power supply



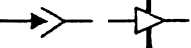
 : B1
 : 12V

*Respective voltage values are indicated.

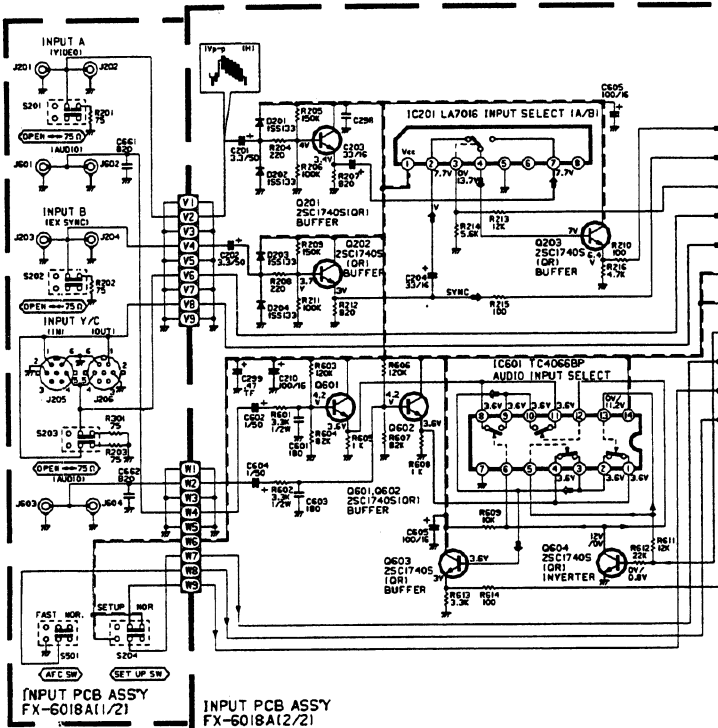
5. Test point & GND. symbol

-  : Test point of mini-GP pin
-  : Only test point display
-  : LIVE side ground
-  : NEUTRAL side ground

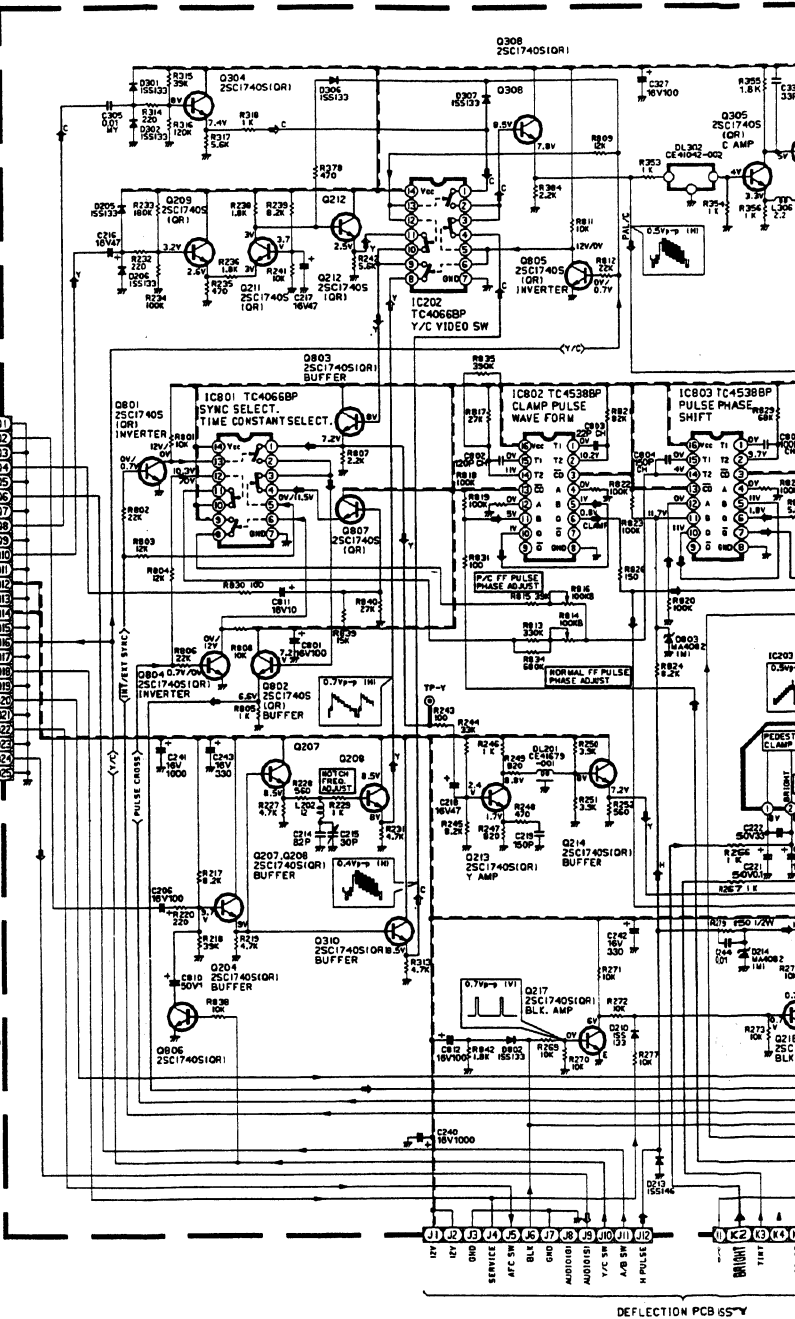
6. Connecting method

-  : Connector
-  : Wrapping or soldering
-  : Receptacle

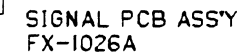
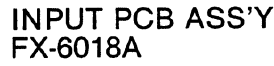
INPUT PCB ASS'Y
FX-6018A



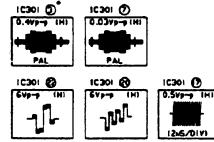
SIGNAL PCB ASS'Y
FX-1026A





SIGNAL PCB ASS'Y
FX-1026A

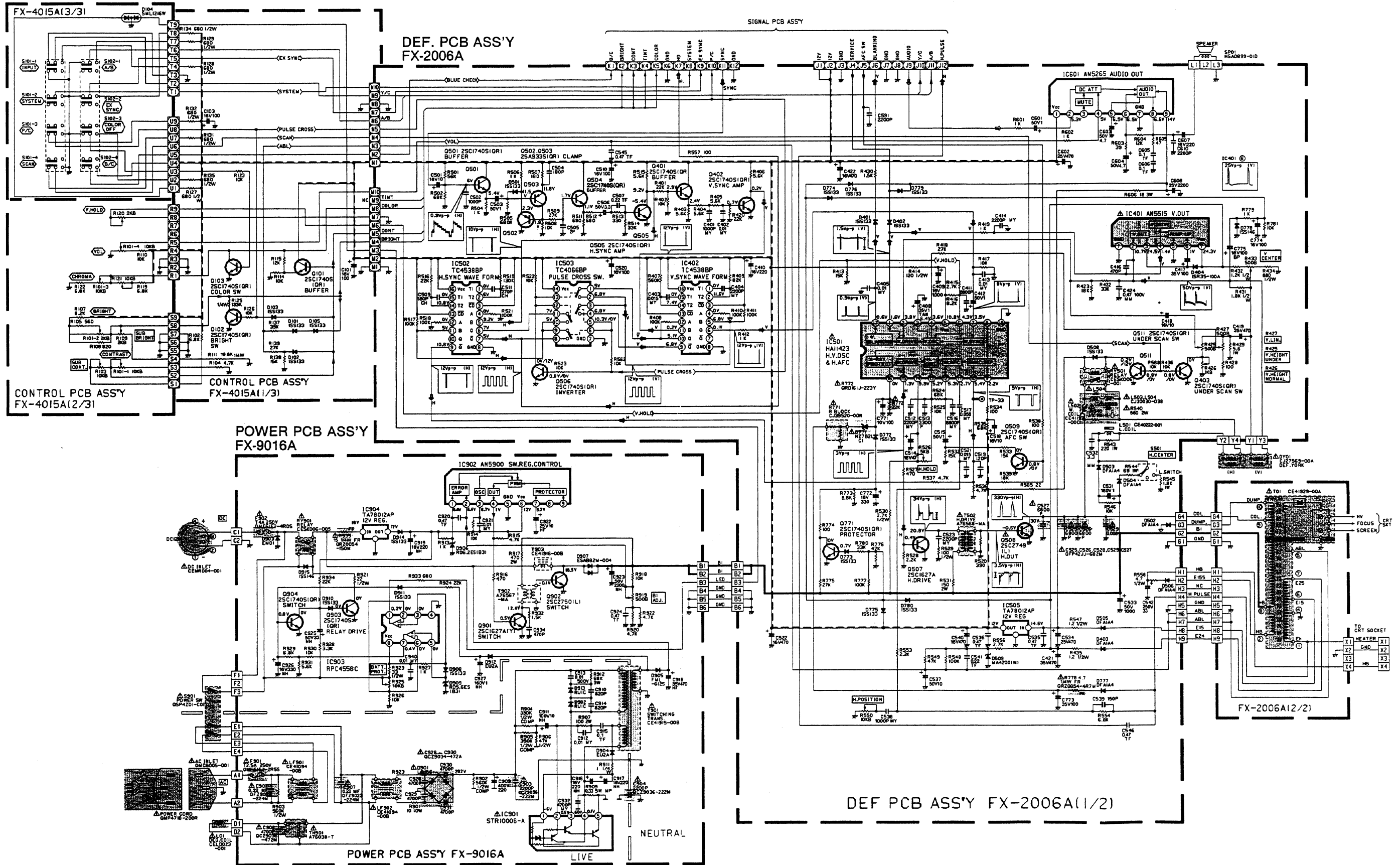


CRT SOCKET PCB ASS'Y
FX-3017A

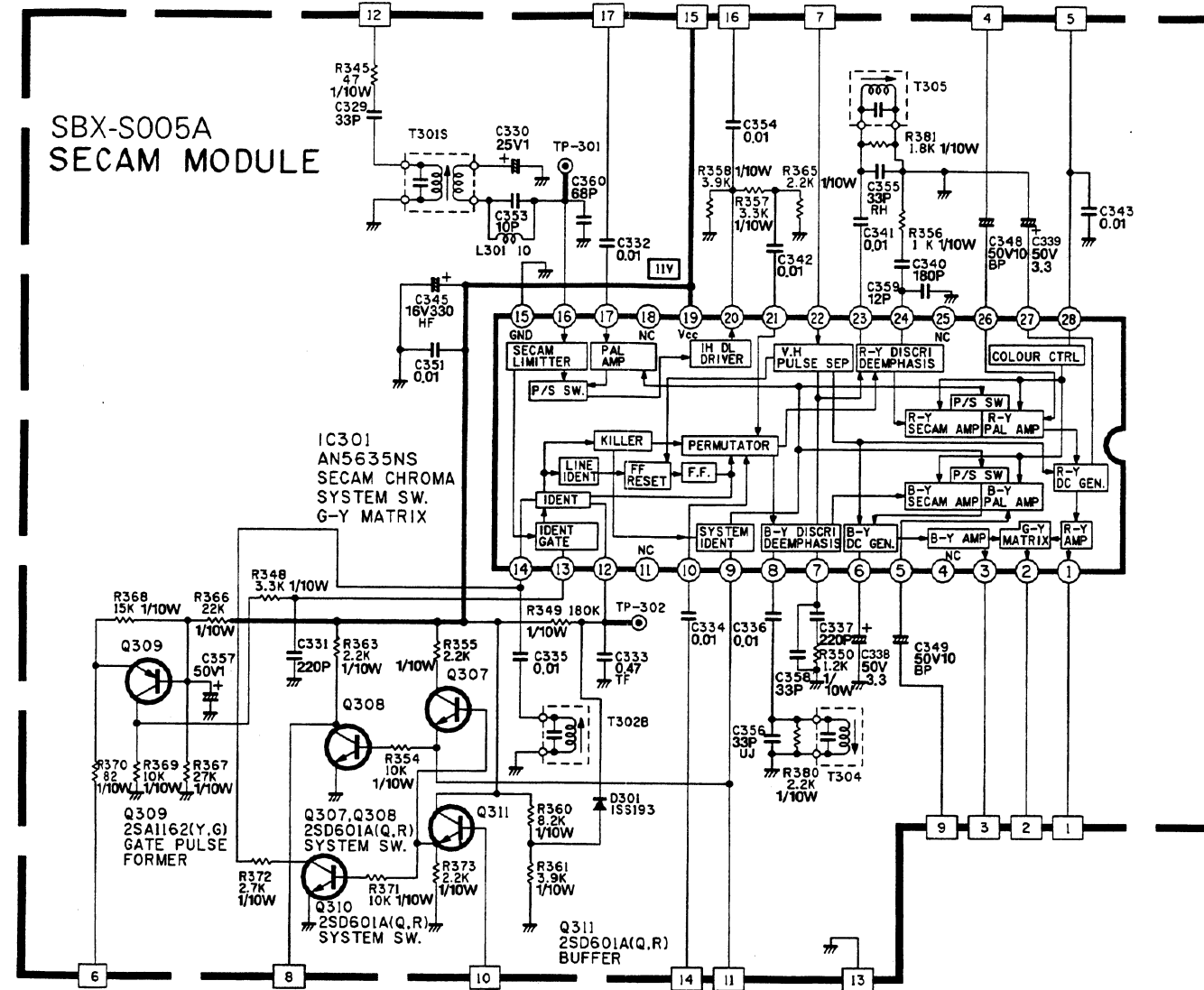


– NOTE FOR SERVICE

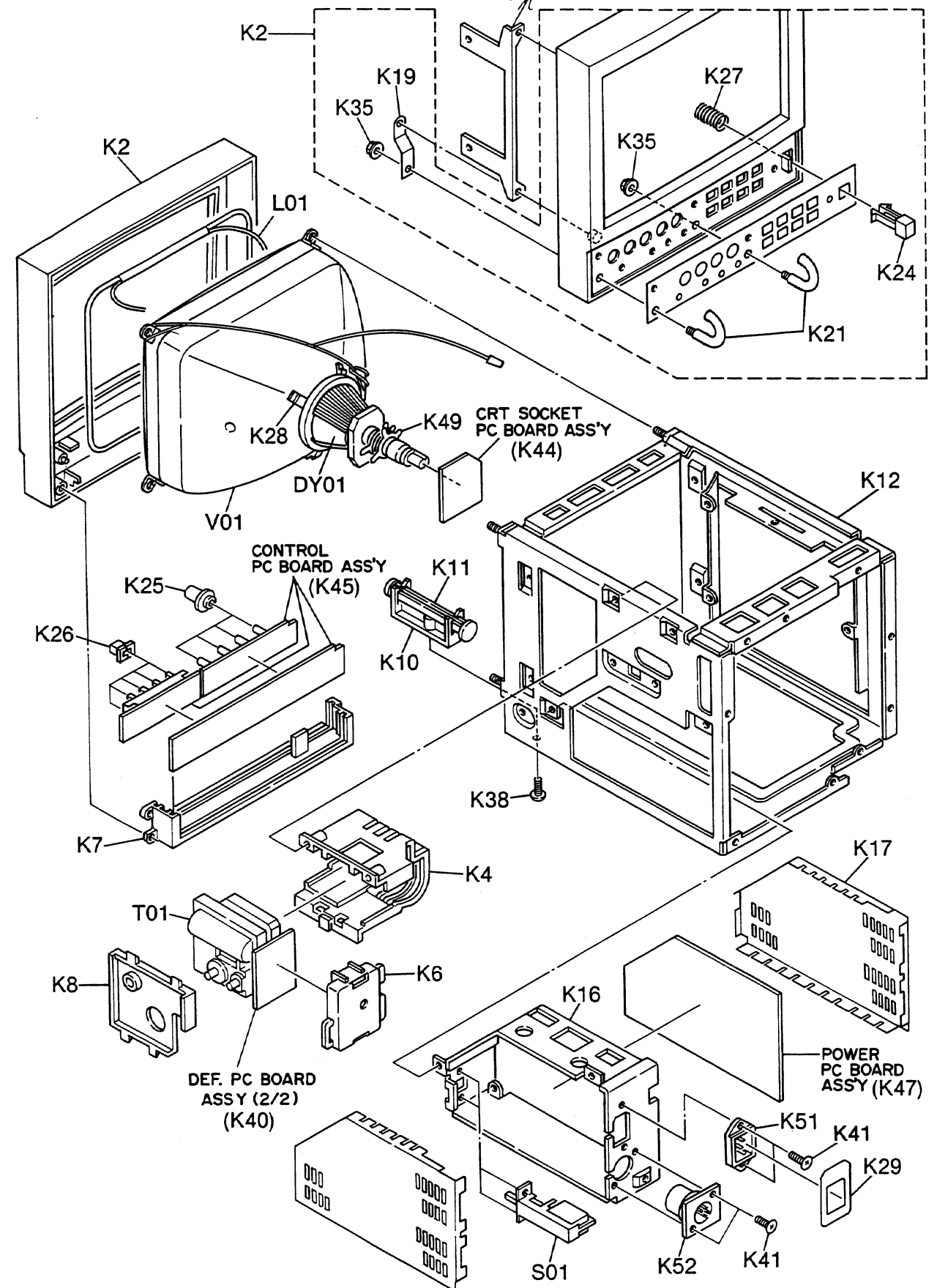
This model's power circuit is partly different in the GND. The difference of the GND is shown by the LIVE (primary: ) side GND and the NEUTRAL (secondary: ) side GND. Don't short between the LIVE side GND and NEUTRAL side GND or never measuring apparatus (oscilloscope etc.) the LIVE side GND and NEUTRAL side GND at the same time. If above note will not be kept, a fuse or any parts will be broken.

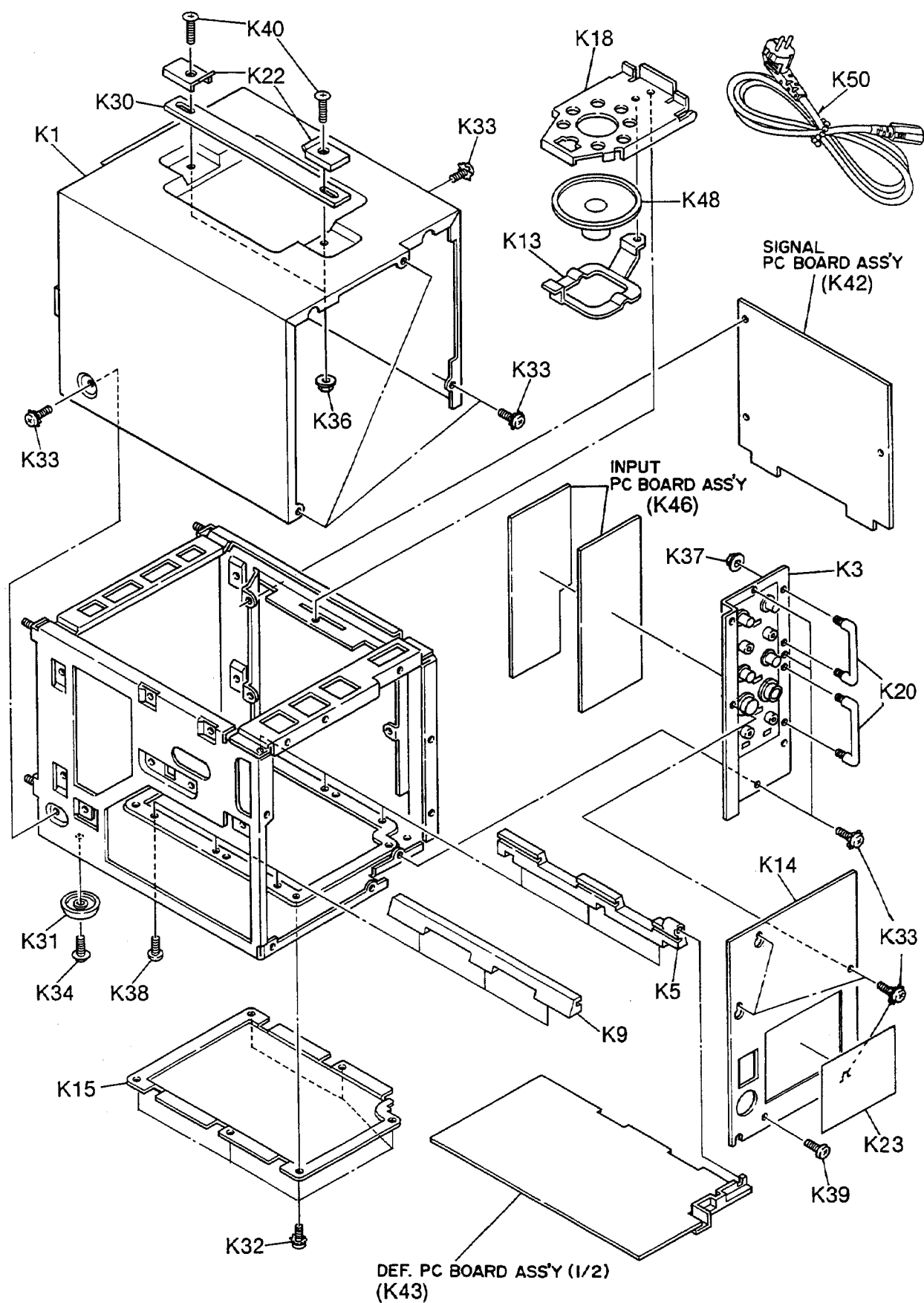
CONTROL PCB ASS'Y
FX-4015A

SBX-S005A
SECAM MODULE



Exploded Views





Replacement Parts List

Important Safety Notice

Components identified by the International symbol Δ have special characteristics important for safety. When replacing any of these components use only manufacture's specified Parts.

Abbreviation of Part Name and Description

1. Resistor

Example:

ERD25TJ104 C 100KOHM, J, 1/4W
TYPE ALLOWANCE

TYPE	ALLOWANCE
C : Carbon	F : $\pm 1\%$
F : Fuse	G : $\pm 2\%$
M : Metal Oxide	J : $\pm 5\%$
Metal Film	K : $\pm 10\%$
S : Solid	M : $\pm 20\%$
W : Wire Wound	

2. Capacitor

Example:

ECKF1H103ZF C 0.01PF, Z, 50V
TYPE ALLOWANCE

TYPE	ALLOWANCE
C : Ceramic	C : ± 0.25 pF
E : Electrolytic	D : ± 0.5 pF
P : Polyester	F : ± 1 pF
PP : Polypropylene	J : $\pm 5\%$
S : Styrol	K : $\pm 10\%$
T : Tantalum	L : $\pm 15\%$
	M : $\pm 20\%$
	P : $\pm 100\%$, -0%
	Z : $\pm 80\%$, -20%

Note: For M of Ref. No., not indicate illustration of it part on "Exploded Views".

Ref.No.	Part No.	Description	Ref.No.	Part No.	Description
	CABINET & MAIN PARTS		M6	CHK4010-110F	WIRE CLAMP
K1	CM11826-00B	TOP COVER	M7	CM40024-001	WIRE CLAMP
K2	CM118270OCMO	ESCUTCHEON	M8	CM46869-001	FASTNER
K3	CM22538-00A	REAR INPUT PANEL	M9	CM46943-001	WIRE CLAMP
K4	CM11897-A01	FLYBACK TRANS HOLDER	K29	CM46950-001	INLET SHEET
K5	CM34735-A01	GUIDE RAIL	M10	CM46974-001	CLAMP
K6	CM34739-B01	FLYBACK TRANS BASE	K30	PU46361-2	HANDEL
K7	CM34741-A01	CONTROL PCB HOLDER	K31	QZF2207-001	FOOT
K8	CM34850-A01	FLYBACK TRANS COVER	M11	QO3091-146	SPACER
K9	CM34851-A01	GUIDE RAIL	M12	CM41141-002	BOLT
K10	CM46754-001	SLIDE HOLDER	K32	CM44286-00A	SCREW
K11	CM46755-001	SLIDE	K33	CM44286-00E	SCREW
K12	CM11823-E0A	FRAME ASSY	M13	CM44286-00F	SCREW
M1	CM22089-001	REAR COVER BRACKET	M14	CM45627-00A	RIVET
K13	CM22091-B01	SPEAKER BRACKET	M15	DPSP3008Z	SCREW
K14	CM22092-A01	REAR COVER(BT-S1000YG)	K34	GBSB3008Z	SCREW
K14	CM22092-002	REAR COVER(BT-S1000Y)	M16	GBSB3012Z	SCREW
K15	CM22141-002	BOTTOM COVER	M17	GBSF3010Z	SCREW
M2	CM34736-001	FRONT BRACKET	M18	LPSP3008Z	SCREW
K16	CM34915-B01	POWER PCB HOLDER	K35	NFS3000Z	NUT
K17	CM34985-A01	POWER PCB COVER	K36	NFS5000Z	NUT
K18	CM43388-001	SPEAKER HOLDER	K37	NNS3000Z	NUT
K19	CM46941-001	EARTH PLATE	M19	SBSB3006Z	SCREW
K20	CM46762-A01	GUARD(REAR)	K38	SBSF3008Z	SCREW
K21	CM47560-001	GUARD(FRONT)	M20	SBSF3012Z	SCREW
K22	PU46385-3	HANDEL COVER	K39	SDSA3008M	SCREW
M3	CHFC25-17ADS	SHIELD CASE	K40	SHSP4014R	SCREW
K23	CM35609-002	MODEL PLATE	K41	SSSB3008Z	SCREW
K24	CM46756-002	KNOB(POWER)	M21	WBS4000W	WASHER
K25	CM46758-002	KNOB(VOLUME)	Δ V01	A22JCM00X	PICTURE TUBE
K26	CM46759-002	KNOB(PUSH)	K42	FX-1026A	SIGNAL P.C. BOARD ASS'Y
K27	CM46757-001	SPRING	K43	FX-2006A	DEF P.C. BOARD ASS'Y
K28	CE40666-00A	DY WEDGE	K44	FX-3017A	CRT P.C. BOARD ASS'Y
M4	CHJ2040-052F	WIRE CLAMP	K45	FX-4015A	CONTROL P.C. BOARD ASS'Y
			K46	FX-6024A	INPUT P.C. BOARD
			K47	FX-9016A	POWER P.C. BOARD ASS'Y
			M22	SBX-S005A	SECAM MODULE

Ref.No.	Part No.	Description	Ref.No.	Part No.	Description
△ K48	HSA0899-01D	SPEAKER		FX-3017A	CRT P.C. BOARD ASS'Y
△ DY01	CJ27569-00A	DEFLECTION YOKE			
△ T01	CE41929-00A	FLYBACK TRANS		CABINET & MAIN PARTS	
△ L01	CELD023-001	DEGAUSS COIL			
K49	CE40266-00A	CONVERGENCE COIL			
△ K50	QMP4908-200R	POWER CORD(BT-S1000Y)	△	CE41748-001	CRT SOCKET
△ K50	QMP5618-200R	POWER CORD(BT-S1000YG)		CE41507-001P	LV CONNECTOR
△ K51	QMCB005-001	AC IN CONNECTOR		TRANSISTORS	
△ K52	CEM004-001	DC IN 12V CONNECTOR			
M23	CH303880624B	6P CONNECTOR ASSY			
			Q3701	2SC2611	TRANSISTOR
M24	CH303880634P	6P CONNECTOR ASSY	Q3702	2SC2611	TRANSISTOR
M25	CH41987-00A	CONNECTOR	Q3703	2SC2611	TRANSISTOR
M26	CH43509-A0A	CONNECTOR ASSY		DIODES	
M27	CH43511-A0A	CONNECTOR ASSY			
△ S01	QSP4Z01-C01	SWITCH	D3701	1SS133	DIODE
			D3711	1SS133	DIODE
M28	CP10704-016	OUTER CARTON	D3751	TVSRM2C	DIODE
M29	CP10996-A0A	FILLER		COIL & TRANSFORMERS	
M30	CP30043-004	SET COVER			
M31	QPGA01203005	BAG			
M32	BTS1000Y-IBA	INSTRUCTION BOOK	L3701	CELPO26-151Z	PEAKING COIL
			L3711	CELPO26-151Z	PEAKING COIL
			L3721	CELPO26-151Z	PEAKING COIL
			L3751	CJ30030-024	COIL
				CAPACITORS	
			C3701	ECCF1H471J	C 470PF J 50V
			C3711	ECCF1H471J	C 470PF J 50V
			C3721	ECCF1H471J	C 470PF J 50V
			C3751	QETC2EM-475Z	E 4.7UF 250V
			C3752	ECEA2EU010	E 1UF 250V
			C3753	QCZ0121-102M	C 1000PF 3K
				RESISTORS	
			R3701	ERD16TJ151	C 150 OHM J 1/6W
			R3702	ERD16TJ102	C 1K OHM J 1/6W
			R3703	QVPE805-103H	CONTROL B 10K OHM
			R3704	QVPE805-201H	CONTROL B 200 OHM
			R3705	ERD16TJ151	C 150 OHM J 1/6W
			R3706	ERG1ANJ822	M 8.2K OHM J 1W
			R3707	ERC12AGK332	S 3.3K OHM K 1/2W
			R3708	ERD16TJ561	C 560 OHM J 1/6W
			R3711	ERD16TJ151	C 150 OHM J 1/6W
			R3712	ERD16TJ102	C 1K OHM J 1/6W
			R3713	QVPE805-103H	CONTROL B 10K OHM
			R3714	QVPE805-201H	CONTROL B 200 OHM
			R3715	ERD16TJ151	C 150 OHM J 1/6W
			R3716	ERG1ANJ822	M 8.2K OHM J 1W
			R3717	ERC12AGK332	S 3.3K OHM K 1/2W
			R3718	ERD16TJ561	C 560 OHM J 1/6W
			R3721	ERD16TJ151	C 150 OHM J 1/6W
			R3722	ERD16TJ102	C 1K OHM J 1/6W
			R3723	QVPE805-103H	CONTROL B 10K OHM
			R3724	ERD16TJ101	C 100 OHM J 1/6W
			R3725	ERD16TJ181	C 180 OHM J 1/6W
			R3726	ERG1ANJ822	M 8.2K OHM J 1W
			R3727	ERC12AGK332	S 3.3K OHM K 1/2W
			R3751	ERC12GJ565	S 5.6M OHM J 1/2W
			R3752	ERC12GJ332	S 3.3K OHM J 1/2W

Ref.No.	Part No.	Description	Ref.No.	Part No.	Description
	FX-1026A	SIGNAL P.C. BOARD ASS'Y	D1308	1SS133	DIODE
	CABINET & MAIN PARTS		D1309	1SS133	DIODE
	CM40024-001	WIRE CLAMP	D1801	1SS133	DIODE
	QHW4110-001	WIRE CLAMP	D1802	1SS133	DIODE
	CHA101N-24PM	24P CONNECTOR	D1803	MA4082M	DIODE
	CHC102W-25TB	25P CONNECTOR		COIL & TRANSFORMERS	
	I.C		L1202	CELPO26-120Z	PEAKING COIL
IC1201	AN5615	INTEGRATED CIRCUIT	L1203	CELPO26-120Z	PEAKING COIL
IC1202	TC4066BP	INTEGRATED CIRCUIT	L1302	CELPO26-8R2Z	PEAKING COIL
IC1301	AN5625N	INTEGRATED CIRCUIT	L1303	CELPO26-8R2Z	PEAKING COIL
IC1801	TC4066BP	INTEGRATED CIRCUIT	L1304	CELPO26-390Z	PEAKING COIL
IC1802	TC4538BP	INTEGRATED CIRCUIT	L1305	CELPO26-4R7Z	PEAKING COIL
IC1803	TC4538BP	INTEGRATED CIRCUIT	L1306	CELPO26-2R2Z	PEAKING COIL
	TRANSISTORS		T1302	CELTO34-002	COIL TRANS
				CAPACITORS	
Q1204	2SC1740SR	TRANSISTOR	C1206	ECEA1CU101	E 100UF 16V
Q1207	2SC1740SR	TRANSISTOR	C1214	ECCF1H820J	C 82PF J 50V
Q1208	2SC1740SR	TRANSISTOR	C1215	QAT3710300MZ	TRIMMER CAPACITOR
Q1209	2SC1740SR	TRANSISTOR	C1216	ECEA1CU470	E 47UF 16V
Q1211	2SC1740SR	TRANSISTOR	C1217	ECEA1CU470	E 47UF 16V
Q1212	2SC1740SR	TRANSISTOR	C1218	ECEA1CU470	E 47UF 16V
Q1213	2SC1740SR	TRANSISTOR	C1219	ECCF1H151J	C 150PF J 50V
Q1214	2SC1740SR	TRANSISTOR	C1221	ECQV1H104JZ	P 0.1UF J 50V
Q1215	2SA933SR	TRANSISTOR	C1222	ECEA1HN3R3	E 3.3UF 50V
Q1217	2SC1740SR	TRANSISTOR	C1223	ECEA1CU100	E 10UF 16V
Q1218	2SC1740SR	TRANSISTOR	C1224	ECEA1HU4R7	E 4.7UF 50V
Q1219	2SC1740SR	TRANSISTOR	C1225	ECCF1H151J	C 150PF J 50V
Q1220	2SC1740SR	TRANSISTOR	C1226	ECEA1CU100	E 10UF 16V
Q1221	2SC1740SR	TRANSISTOR	C1227	ECEA1CU221	E 220UF 16V
Q1304	2SC1740SR	TRANSISTOR	C1228	ECCF1H101J	C 100PF J 50V
Q1305	2SC1740SR	TRANSISTOR	C1229	ECKF1H103PF	C 0.01UF P 50V
Q1306	2SA933SR	TRANSISTOR	C1236	ECEA1CU331	E 330UF 16V
Q1308	2SC1740SR	TRANSISTOR	C1240	ECEA1CU102	E 1000UF 16V
Q1310	2SC1740SR	TRANSISTOR	C1241	ECEA1CU102	E 1000UF 16V
Q1801	2SC1740SR	TRANSISTOR	C1242	ECEA1CU331	E 330UF 16V
Q1802	2SC1740SR	TRANSISTOR	C1243	ECEA1CU331	E 330UF 16V
Q1803	2SC1740SR	TRANSISTOR	C1244	ECKF1H103PF	C 0.01UF P 50V
Q1804	2SC1740SR	TRANSISTOR	C1305	ECQM1H103JV	P 0.01UF J 50V
Q1805	2SC1740SR	TRANSISTOR	C1306	ECKF1H103PF	C 0.01UF P 50V
Q1806	2SC1740SR	TRANSISTOR	C1307	ECCF1H470J	C 47PF J 50V
Q1807	2SC1740SR	TRANSISTOR	C1308	ECCF1H120J	C 12PF J 50V
	DIODES		C1309	QAT3710300MZ	TRIMMER CAPACITOR
D1205	1SS133	DIODE	C1311	ECQV1H563JZ	P 0.056UF J 50V
D1206	1SS133	DIODE	C1312	ECCF1H681J	C 680PF J 50V
D1207	1SS146	DIODE	C1313	ECQM1H103JV	P 0.01UF J 50V
D1210	1SS133	DIODE	C1314	ECEA1CN100S	E 10UF 16V
D1211	MA4082L	DIODE	C1315	ECEA1EU471	E 470UF 25V
D1212	1SS133	DIODE	C1316	ECEA1EU471	E 470UF 25V
D1213	1SS146	DIODE	C1317	ECCF1H221J	C 220PF J 50V
D1214	MA4082M	DIODE	C1318	ECQM1H273JV	P 0.027UF J 50V
D1301	1SS133	DIODE	C1319	ECKF1H103PF	C 0.01UF P 50V
D1302	1SS133	DIODE	C1321	ECCF1H820J	C 82PF J 50V
D1303	1SS133	DIODE	C1322	ECQM1H103JV	P 0.01UF J 50V
D1304	1SS133	DIODE	C1323	ECKF1H103PF	C 0.01UF P 50V
D1305	1SS133	DIODE	C1324	ECKF1H103PF	C 0.01UF P 50V
D1306	1SS133	DIODE	C1325	ECEA1HUR47	E 0.47UF 50V
D1307	1SS133	DIODE	C1326	ECEA1CU101	E 100UF 16V
			C1327	ECEA1CU101	E 100UF 16V
			C1328	QAT3710300MZ	TRIMMER CAPACITOR
			C1329	ECCF1H181J	C 180PF J 50V

Ref.No.	Part No.	Description	Ref.No.	Part No.	Description
C1331	ECEA1CU471	E 470UF 16V	R1270	ERD16TJ103	C 10K OHM J 1/6W
C1332	QAT3710300MZ	TRIMMER CAPACITOR	R1271	ERD16TJ103	C 10K OHM J 1/6W
C1333	ECCF1H180J	C 18PF J 50V	R1272	ERD16TJ103	C 10K OHM J 1/6W
C1334	ECCF1H180J	C 18PF J 50V	R1273	ERD16TJ103	C 10K OHM J 1/6W
C1335	ECCF1H180J	C 18PF J 50V	R1274	ERD16TJ103	C 10K OHM J 1/6W
C1337	ECQM1H103JV	P 0.01UF J 50V	R1275	ERD16TJ102	C 1K OHM J 1/6W
C1339	ECCF1H330J	C 33PF J 50V	R1276	ERD16TJ103	C 10K OHM J 1/6W
C1340	ECCF1H561J	C 560PF J 50V	R1277	ERD16TJ103	C 10K OHM J 1/6W
C1341	QAT3710300MZ	TRIMMER CAPACITOR	R1278	ERD16TJ821	C 820 OHM J 1/6W
C1343	ECQV1H104JZ	P 0.1UF J 50V	R1279	ERDS1TJ151	C 150 OHM J 1/2W
C1344	ECCF1H330J	C 33PF J 50V	R1313	ERD16TJ472	C 4.7K OHM J 1/6W
C1345	ECCF1H470J	C 47PF J 50V	R1314	ERD16TJ221	C 220 OHM J 1/6W
C1346	ECEA1CU100	E 10UF 16V	R1315	ERD16TJ393	C 39K OHM J 1/6W
C1801	ECEA1CU101	E 100UF 16V	R1316	ERD16TJ124	C 120K OHM J 1/6W
C1802	ECCF1H121J	C 120PF J 50V	R1317	ERD16TJ562	C 5.6K OHM J 1/6W
C1803	ECCF1H220J	C 22PF J 50V	R1318	ERD16TJ102	C 1K OHM J 1/6W
C1804	ECCF1H151J	C 150PF J 50V	R1319	ERD16TJ472	C 4.7K OHM J 1/6W
C1805	ECCF1H101J	C 100PF J 50V	R1321	ERD16TJ222	C 2.2K OHM J 1/6W
C1806	ECEA1CU101	E 100UF 16V	R1322	ERD16TJ332	C 3.3K OHM J 1/6W
C1810	ECEA1HU1R0	E 1UF 50V	R1324	ERD16TJ332	C 3.3K OHM J 1/6W
C1811	ECEA1CU100	E 10UF 16V	R1325	ERD16TJ103	C 10K OHM J 1/6W
C1812	ECEA1CU101	E 100UF 16V	R1326	ERD16TJ222	C 2.2K OHM J 1/6W
RESISTORS			R1327	ERD16TJ103	C 10K OHM J 1/6W
R1217	ERD16TJ822	C 8.2K OHM J 1/6W	R1328	ERD16TJ681	C 680 OHM J 1/6W
R1218	ERD16TJ393	C 39K OHM J 1/6W	R1332	ERD16TJ392	C 3.9K OHM J 1/6W
R1219	ERD16TJ472	C 4.7K OHM J 1/6W	R1333	ERD16TJ103	C 10K OHM J 1/6W
R1220	ERD16TJ221	C 220 OHM J 1/6W	R1334	ERD16TJ223	C 22K OHM J 1/6W
R1227	ERD16TJ472	C 4.7K OHM J 1/6W	R1335	ERD16TJ102	C 1K OHM J 1/6W
R1228	ERD16TJ561	C 560 OHM J 1/6W	R1336	ERD16TJ102	C 1K OHM J 1/6W
R1229	ERD16TJ102	C 1K OHM J 1/6W	R1337	ERD16TJ103	C 10K OHM J 1/6W
R1231	ERD16TJ472	C 4.7K OHM J 1/6W	R1338	QVPC611202HZ	CONTROL B 2K OHM
R1232	ERD16TJ221	C 220 OHM J 1/6W	R1339	ERD16TJ471	C 470 OHM J 1/6W
R1233	ERD16TJ184	C 180K OHM J 1/6W	R1342	ERD16TJ391	C 390 OHM J 1/6W
R1234	ERD16TJ104	C 100K OHM J 1/6W	R1343	ERD16TJ102	C 1K OHM J 1/6W
R1235	ERD16TJ471	C 470 OHM J 1/6W	R1346	ERD16TJ103	C 10K OHM J 1/6W
R1236	ERD16TJ182	C 1.8K OHM J 1/6W	R1348	ERD16TJ224	C 220K OHM J 1/6W
R1238	ERD16TJ182	C 1.8K OHM J 1/6W	R1349	ERD16TJ222	C 2.2K OHM J 1/6W
R1239	ERD16TJ822	C 8.2K OHM J 1/6W	R1351	QVPC611203HZ	CONTROL B 20K OHM
R1241	ERD16TJ103	C 10K OHM J 1/6W	R1352	ERD16TJ222	C 2.2K OHM J 1/6W
R1242	ERD16TJ562	C 5.6K OHM J 1/6W	R1353	ERD16TJ102	C 1K OHM J 1/6W
R1243	ERD16TJ101	C 100 OHM J 1/6W	R1354	ERD16TJ102	C 1K OHM J 1/6W
R1244	ERD16TJ333	C 33K OHM J 1/6W	R1355	ERD16TJ182	C 1.8K OHM J 1/6W
R1245	ERD16TJ822	C 8.2K OHM J 1/6W	R1356	ERD16TJ102	C 1K OHM J 1/6W
R1246	ERD16TJ102	C 1K OHM J 1/6W	R1357	ERD16TJ272	C 2.7K OHM J 1/6W
R1247	ERD16TJ821	C 820 OHM J 1/6W	R1358	ERDS1FJ2R2	C 2.2 OHM J 1/2W
R1248	ERD16TJ471	C 470 OHM J 1/6W	R1359	ERD16TJ391	C 390 OHM J 1/6W
R1249	ERD16TJ821	C 820 OHM J 1/6W	R1361	ERD16TJ681	C 680 OHM J 1/6W
R1250	ERD16TJ392	C 3.9K OHM J 1/6W	R1362	ERD16TJ223	C 22K OHM J 1/6W
R1251	ERD16TJ392	C 3.9K OHM J 1/6W	R1363	ERD16TJ102	C 1K OHM J 1/6W
R1252	ERD16TJ561	C 560 OHM J 1/6W	R1364	ERD16TJ472	C 4.7K OHM J 1/6W
R1253	ERD16TJ331	C 330 OHM J 1/6W	R1366	ERD16TJ332	C 3.3K OHM J 1/6W
R1256	ERD16TJ103	C 10K OHM J 1/6W	R1367	ERD16TJ332	C 3.3K OHM J 1/6W
R1257	ERD16TJ272	C 2.7K OHM J 1/6W	R1368	ERD16TJ332	C 3.3K OHM J 1/6W
R1258	ERD16TJ472	C 4.7K OHM J 1/6W	R1371	ERD16TJ102	C 1K OHM J 1/6W
R1259	ERD16TJ103	C 10K OHM J 1/6W	R1372	ERD16TJ391	C 390 OHM J 1/6W
R1261	ERD16TJ271	C 270 OHM J 1/6W	R1373	ERD16TJ391	C 390 OHM J 1/6W
R1262	ERD16TJ681	C 680 OHM J 1/6W	R1374	ERD16TJ391	C 390 OHM J 1/6W
R1263	ERD16TJ150	C 15 OHM J 1/6W	R1375	ERD16TJ101	C 100 OHM J 1/6W
R1266	ERD16TJ102	C 1K OHM J 1/6W	R1376	ERD16TJ103	C 10K OHM J 1/6W
R1267	ERD16TJ102	C 1K OHM J 1/6W	R1378	ERD16TJ471	C 470 OHM J 1/6W
R1269	ERD16TJ103	C 10K OHM J 1/6W	R1379	ERD16TJ103	C 10K OHM J 1/6W
			R1381	ERD16TJ102	C 1K OHM J 1/6W

Ref.No.	Part No.	Description	Ref.No.	Part No.	Description
R1382	ERD16TJ824	C 820K OHM J 1/6W		FX-4015A	CONTROL P.C. BOARD ASS'Y
R1383	ERD16TJ824	C 820K OHM J 1/6W			
R1384	ERD16TJ222	C 2.2K OHM J 1/6W		CABINET & MAIN PARTS	
R1390	ERD16TJ105	C 1M OHM J 1/6W			
R1391	ERD16TJ182	C 1.8K OHM J 1/6W			
				CM46942-001	LED HOLDER
R1392	ERD16TJ394	C 390K OHM J 1/6W		CHE001T-09PA	9P CONNECTOR
R1393	ERD16TJ563	C 56K OHM J 1/6W		CHE001T-09RA	9P CONNECTOR
R1394	ERD16TJ563	C 56K OHM J 1/6W		CHE002N-10RM	10P CONNECTOR
R1481	ERD16TJ472	C 4.7K OHM J 1/6W			
R1801	ERD16TJ103	C 10K OHM J 1/6W		TRANSISTORS	
R1802	ERD16TJ223	C 22K OHM J 1/6W	Q4101	2SC1740SR	TRANSISTOR
R1803	ERD16TJ123	C 12K OHM J 1/6W	Q4102	2SC1740SR	TRANSISTOR
R1804	ERD16TJ123	C 12K OHM J 1/6W	Q4103	2SC1740SR	TRANSISTOR
R1805	ERD16TJ102	C 1K OHM J 1/6W			
R1806	ERD16TJ223	C 22K OHM J 1/6W		DIODES	
R1807	ERD16TJ222	C 2.2K OHM J 1/6W	D4101	1SS133	DIODE
R1808	ERD16TJ103	C 10K OHM J 1/6W	D4102	1SS133	DIODE
R1809	ERD16TJ123	C 12K OHM J 1/6W	D4103	1SS133	DIODE
R1811	ERD16TJ103	C 10K OHM J 1/6W	D4104	SML1216W	DIODE
R1812	ERD16TJ223	C 22K OHM J 1/6W	D4105	1SS133	DIODE
R1813	ERD16TJ334	C 330K OHM J 1/6W		CAPACITORS	
R1814	QVPC611104HZ	CONTROL B 100K OHM			
R1815	ERD16TJ393	C 39K OHM J 1/6W	C4101	ECEA1CKA101	E 100UF 16V
R1816	QVPC611104HZ	CONTROL B 100K OHM	C4103	ECEA1CKA101	E 100UF 16V
R1817	ERD16TJ273	C 27K OHM J 1/6W			
				RESISTORS	
R1818	ERD16TJ104	C 100K OHM J 1/6W	R3126	ERD16TJ103	C 10K OHM J 1/6W
R1819	ERD16TJ104	C 100K OHM J 1/6W	R4101	QVAZ006C010A	CONTROL B 10K OHM
R1820	ERD16TJ104	C 100K OHM J 1/6W	R4102	ERD16TJ682	C 6.8K OHM J 1/6W
R1821	ERD16TJ823	C 82K OHM J 1/6W	R4103	QVPC611103HZ	CONTROL B 10K OHM
R1822	ERD16TJ104	C 100K OHM J 1/6W	R4104	ERD16TJ472	C 4.7K OHM J 1/6W
R1823	ERD16TJ104	C 100K OHM J 1/6W	R4105	ERD16TJ561	C 560 OHM J 1/6W
R1824	ERD16TJ822	C 8.2K OHM J 1/6W	R4107	ERD16TJ822	C 8.2K OHM J 1/6W
R1825	ERD16TJ104	C 100K OHM J 1/6W	R4108	ERD16TJ821	C 820 OHM J 1/6W
R1826	ERD16TJ151	C 150 OHM J 1/6W	R4109	QVPC611202HZ	CONTROL B 2K OHM
R1828	ERD16TJ562	C 5.6K OHM J 1/6W	R4110	ERD16TJ103	C 10K OHM J 1/6W
R1829	ERD16TJ683	C 68K OHM J 1/6W	R4111	ERO25CKF1962	M 19.6K OHM F 1/4W
R1830	ERD16TJ101	C 100 OHM J 1/6W	R4114	ERD16TJ103	C 10K OHM J 1/6W
R1831	ERD16TJ101	C 100 OHM J 1/6W	R4115	ERD16TJ123	C 12K OHM J 1/6W
R1834	ERD16TJ684	C 680K OHM J 1/6W	R4119	ERD16TJ682	C 6.8K OHM J 1/6W
R1835	ERD16TJ394	C 390K OHM J 1/6W	R4120	QVPC611502HZ	CONTROL B 2K OHM
R1838	ERD16TJ103	C 10K OHM J 1/6W	R4121	QVPC611103HZ	CONTROL B 10K OHM
R1839	ERD16TJ153	C 15K OHM J 1/6W	R4122	ERD16TJ682	C 6.8K OHM J 1/6W
R1840	ERD16TJ273	C 27K OHM J 1/6W	R4123	ERD16TJ103	C 10K OHM J 1/6W
R1842	ERD16TJ182	C 1.8K OHM J 1/6W	R4125	ERO25CKF1333	M 133K OHM F 1/4W
			R4127	ERDS1TJ681	C 680 OHM J 1/2W
	OTHERS				
DL1201	CE41679-001	DELAY LINE	R4128	ERDS1TJ681	C 680 OHM J 1/2W
DL1302	CE41042-002	DELAY LINE	R4129	ERDS1TJ681	C 680 OHM J 1/2W
DL1303	CE41489-001	DELAY LINE	R4131	ERDS1TJ681	C 680 OHM J 1/2W
X1301	CE41953-001	CRYSTAL OSCILLATOR	R4132	ERDS1TJ681	C 680 OHM J 1/2W
			R4134	ERDS1TJ681	C 680 OHM J 1/2W
			R4135	ERDS1TJ681	C 680 OHM J 1/2W
			R4137	ERD16TJ393	C 39K OHM J 1/6W
			R4138	ERD16TJ153	C 15K OHM J 1/6W
			R4139	ERD16TJ273	C 27K OHM J 1/6W
				OTHERS	
			S4101	QSTL435-C01	SWITCH
			S4102	QSTL435-C01	SWITCH

Ref.No.	Part No.	Description	Ref.No.	Part No.	Description
	FX-6024A	INPUT P.C. BOARD ASS'Y	R6601	ERDS1TJ332	C 3.3K OHM J 1/2W
	CABINET & MAIN PARTS		R6602	ERDS1TJ332	C 3.3K OHM J 1/2W
	CHC102W-25SB	CONNECTOR	R6603	ERD16TJ124	C 120K OHM J 1/6W
	CHE001T-09PA	9P CONNECTOR	R6604	ERD16TJ823	C 82K OHM J 1/6W
	CHE001T-09RA	9P CONNECTOR	R6605	ERD16TJ102	C 1K OHM J 1/6W
	I.C		R6606	ERD16TJ124	C 120K OHM J 1/6W
IC6201	LA7016	INTEGRATED CIRCUIT	R6607	ERD16TJ823	C 82K OHM J 1/6W
IC6601	TC4066BP	INTEGRATED CIRCUIT	R6608	ERD16TJ102	C 1K OHM J 1/6W
	TRANSISTORS		R6609	ERD16TJ103	C 10K OHM J 1/6W
Q6201	2SC1740SR	TRANSISTOR	R6611	ERD16TJ123	C 12K OHM J 1/6W
Q6202	2SC1740SR	TRANSISTOR	R6612	ERD16TJ223	C 22K OHM J 1/6W
Q6203	2SC1740SR	TRANSISTOR	R6613	ERD16TJ332	C 3.3K OHM J 1/6W
Q6601	2SC1740SR	TRANSISTOR	R6614	ERD25FJ101K	C 100 OHM J 1/4W
Q6602	2SC1740SR	TRANSISTOR		OTHERS	
Q6603	2SC1740SR	TRANSISTOR	S6201	QSS4C22-C02	SWITCH
Q6604	2SC1740SR	TRANSISTOR	S6202	QSS4C22-C02	SWITCH
	DIODES		S6203	QSS4C22-C02	SWITCH
D6201	1SS133	DIODE	S6204	QSS4C22-C02	SWITCH
D6202	1SS133	DIODE	S6501	QSS4C22-C02	SWITCH
D6203	1SS133	DIODE			
D6204	1SS133	DIODE			
	CAPACITORS				
C6201	ECEA1HKA3R3	E 3.3UF 50V			
C6202	ECEA1HKA3R3	E 3.3UF 50V			
C6203	ECEA1CKA330	E 33UF 16V			
C6204	ECEA1CKA330	E 33UF 16V			
C6205	ECEA1CKA101	E 100UF 16V			
C6210	ECEA1CKA101	E 100UF 16V			
C6299	ECQV1H474JZ	P 0.47UF J 50V			
C6601	ECCF1H181J	C 180PF J 50V			
C6602	ECEA1HKA010	E 1UF 50V			
C6603	ECCF1H181J	C 180PF J 50V			
C6604	ECEA1HKA010	E 1UF 50V			
C6605	ECEA1CKA101	E 100UF 16V			
C6661	QCY31HK821AZ	C 820PF K 50V			
C6662	QCY31HK821AZ	C 820PF K 50V			
	RESISTORS				
R6201	ERD16TJ750	C 75 OHM J 1/6W			
R6202	ERD16TJ750	C 75 OHM J 1/6W			
R6203	ERD16TJ750	C 75 OHM J 1/6W			
R6204	ERD16TJ221	C 220 OHM J 1/6W			
R6205	ERD16TJ154	C 150K OHM J 1/6W			
R6206	ERD16TJ104	C 100K OHM J 1/6W			
R6207	ERD16TJ821	C 820 OHM J 1/6W			
R6208	ERD16TJ221	C 220 OHM J 1/6W			
R6209	ERD16TJ154	C 150K OHM J 1/6W			
R6210	ERD16TJ100	C 10 OHM J 1/6W			
R6211	ERD16TJ104	C 100K OHM J 1/6W			
R6212	ERD16TJ821	C 820 OHM J 1/6W			
R6213	ERD16TJ123	C 12K OHM J 1/6W			
R6214	ERD16TJ562	C 5.6K OHM J 1/6W			
R6215	ERD16TJ101	C 100 OHM J 1/6W			
R6216	ERD16TJ472	C 4.7K OHM J 1/6W			
R6301	ERD16TJ750	C 75 OHM J 1/6W			

[illegible]

Ref.No.	Part No.	Description	Ref.No.	Part No.	Description
	SBX-S005A	SECAM MODULE	R1358	ERJ6GEYJ392	M 3.9K OHM J 1/10W
	I.C		R1360	ERJ6GEYJ822	M 8.2K OHM J 1/10W
			R1361	ERJ6GEYJ392	M 3.9K OHM J 1/10W
			R1363	ERJ6GEYJ222	M 2.2K OHM J 1/10W
			R1365	ERJ6GEYJ222	M 2.2K OHM J 1/10W
IC1301	AN5635NS	INTEGRATED CIRCUIT	R1366	ERJ6GEYJ223	M 22K OHM J 1/10W
	TRANSISTORS		R1367	ERJ6GEYJ273	M 27K OHM J 1/10W
Q1307	2SD601AR	TRANSISTOR	R1368	ERJ6GEYJ153	M 15K OHM J 1/10W
Q1308	2SD601AR	TRANSISTOR	R1369	ERJ6GEYJ103	M 10K OHM J 1/10W
Q1309	2SA1162YG	TRANSISTOR	R1370	ERJ6GEYJ820	M 82 OHM J 1/10W
Q1310	2SD601AR	TRANSISTOR			
Q1311	2SD601AR	TRANSISTOR	R1371	ERJ6GEYJ103	M 10K OHM J 1/10W
	DIODES		R1372	ERJ6GEYJ272	M 2.7K OHM J 1/10W
D1301	1SS193	DIODE	R1373	ERJ6GEYJ222	M 2.2K OHM J 1/10W
	COIL & TRANSFORMERS		R1380	ERJ6GEYJ222	M 2.2K OHM J 1/10W
			R1381	ERJ6GEYJ182	M 1.8K OHM J 1/10W
L1301	CELP017-100	PEAKING COIL			
T1301S	CELT015-002	COIL TRANS			
T1302B	CELT015-001	COIL TRANS			
T1304	CELT015-003	COIL TRANS			
T1305	CELT015-003	COIL TRANS			
	CAPACITORS				
C1329	QCT81CH330YL	C 33PF H 16V			
C1330	ECSF1EE105	T 1UF 25V			
C1331	QCS81HJ221YL	C 220PF J 50V			
C1332	QCF81HZ103YL	C 0.01UF Z 50V			
C1333	QFZ0099-474M	P 0.47UF 50V			
C1334	QCY81HK103YL	C 0.01UF K 50V			
C1335	QCF81HZ103YL	C 0.01UF Z 50V			
C1336	QCY81HK103YL	C 0.01UF K 50V			
C1337	QCS81HJ221YL	C 220PF J 50V			
C1338	ECEA1HKA3R3	E 3.3UF 50V			
C1339	ECEA1HKA3R3	E 3.3UF 50V			
C1340	QCS81HJ181YL	C 180PF J 50V			
C1341	QCY81HK103YL	C 0.01UF K 50V			
C1342	QCY81HK103YL	C 0.01UF K 50V			
C1343	QCF81HZ103YL	C 0.01UF Z 50V			
C1345	ECEA1CF331	E 330UF 16V			
C1348	ECEA1AN100	E 10UF 50V			
C1349	ECEA1AN100	E 10UF 50V			
C1351	QCY81HK103YL	C 0.01UF K 50V			
C1353	QCT81CH100YL	C 10PF H 16V			
C1354	QCY81HK103YL	C 0.01UF K 50V			
C1355	QCT81RH330YL	C 33PF H 16V			
C1356	QCT81UJ330YL	C 33PF J 50V			
C1357	ECEA1HKA010	E 1UF 50V			
C1358	QCT81CH330YL	C 33PF H 16V			
C1359	QCT81CH120YL	C 12PF H 16V			
C1360	QCT81CH680YL	C 68PF H 16V			
	RESISTORS				
R1345	ERJ6GEYJ470	M 47 OHM J 1/10W			
R1348	ERJ6GEYJ332	M 3.3K OHM J 1/10W			
R1349	ERJ6GEYJ184	M 180K OHM J 1/10W			
R1350	ERJ6GEYJ122	M 1.2K OHM J 1/10W			
R1354	ERJ6GEYJ103	M 10K OHM J 1/10W			
R1355	ERJ6GEYJ222	M 2.2K OHM J 1/10W			
R1356	ERJ6GEYJ102	M 1K OHM J 1/10W			
R1357	ERJ6GEYJ332	M 3.3K OHM J 1/10W			

Ref.No.	Part No.	Description	Ref.No.	Part No.	Description
	FX-2006A	DEF P.C. BOARD ASS'Y	D2778	1SS146	DIODE
	CABINET & MAIN PARTS		D2779	1SS133	DIODE
	CM46852-001	WIEW CLAMP	D2780	1SS133	DIODE
	CM32201-00C	SCREW		COIL & TRANSFORMERS	
	CM43526-A01	SPRING	L2501	CE40222-001	COIL
	CM45597-001	LUG	Δ L2502	CE41197-00C	COIL
	A74021-BS	4P CONNECTOR	Δ L2503	CJ30030-038	COIL
	CHA101N-24RM	24P CONNECTOR	Δ L2504	CJ30030-038	COIL
	CHE002N-10PM	10P CONNECTOR	Δ T2502	A76568-MA	COIL
	CH303900426X	4P CONNECTOR ASSY		CAPACITORS	
	CH303900922H	9P CONNECTOR ASSY	C2401	ECQM1H102JV	P 1000PF J 50V
	CH43512-BOA	CONNECTOR ASSY	C2402	ECQM1H103JV	P 0.01UF J 50V
	I.C		C2403	ECQM1H153JV	P 0.015UF J 50V
Δ	IC2401AN5515	INTEGRATED CIRCUIT	C2404	ECQM1H222JV	P 2200PF J 50V
	IC2402TC4538BP	INTEGRATED CIRCUIT	C2405	ECQM1H103JV	P 0.01UF J 50V
Δ	IC2501TVSHA11423	INTEGRATED CIRCUIT	C2408	ECSF1VE105	T 1.0UF 35V
	IC2502TC4538BP	INTEGRATED CIRCUIT	C2409	ECEA1CU102	E 1000UF 16V
	IC2503TC4066BP	INTEGRATED CIRCUIT	C2410	ECEA1CU221	E 220UF 16V
	IC2505TA78012AP	INTEGRATED CIRCUIT	C2411	ECQM1H682JV	P 6800PF J 50V
	IC2601AN5265	INTEGRATED CIRCUIT	C2412	ECEA1HU1R0	E 1UF 50V
	TRANSISTORS		C2413	ECQM1H103JV	P 0.01UF J 50V
	Q2401 2SC1740SR	TRANSISTOR	C2414	ECQM1H222JV	P 2200PF J 50V
	Q2402 2SC1740SR	TRANSISTOR	C2416	ECCD2H471J	C 470PF J 500V
	Q2403 2SC1740SR	TRANSISTOR	C2417	ECEA1VU101	E 100UF 35V
	Q2501 2SC1740SR	TRANSISTOR	C2418	ECEA1CU100	E 10UF 16V
	Q2502 2SA933SR	TRANSISTOR	C2419	ECEA1EU471	E 470UF 25V
	Q2503 2SA933SR	TRANSISTOR	C2421	ECEA1VU471	E 470UF 35V
	Q2504 2SC1740SR	TRANSISTOR	C2422	ECEA1CU471	E 470UF 16V
	Q2505 2SC1740SR	TRANSISTOR	C2424	ECQE1474JZ	P 0.47UF J 100V
	Q2506 2SC1740SR	TRANSISTOR	C2445	ECQV1H474JZ	P 0.47UF J 50V
	Q2507 2SC1627AY	TRANSISTOR	C2501	ECEA1CU100	E 10UF 16V
Δ	Q2508 2SC2749L	TRANSISTOR	C2502	ECKF1H102PE	C 1000PF P 50V
	Q2509 2SC1740SR	TRANSISTOR	C2503	ECEA1HU1R0	E 1UF 50V
	Q2511 2SC1740SR	TRANSISTOR	C2504	ECCF1H181J	C 180PF J 50V
	Q2771 2SC1740SR	TRANSISTOR	C2505	QCS31HJ2R0AZ	C 2PF J 50V
	DIODES		C2506	ECEA1HU3R3	E 3.3UF 50V
	D2401 1SS133	DIODE	C2507	ECQV1H224JZ	P 0.22UF J 50V
	D2402 1SS133	DIODE	C2509	ECCF1H181J	C 180PF J 50V
	D2403 DFA1A4-4	DIODE	C2510	ECEA1CU101	E 100UF 16V
	D2404 1SR35-100A	DIODE	C2511	ECCF1H271J	C 270PF J 50V
	D2501 1SS133	DIODE	C2512	ECQM1H222JV	P 2200PF J 50V
	D2502 DFA1A4-4	DIODE	C2513	ECQP1H332JZ	PP 3300PF J 50V
	D2503 DFA1A4-4	DIODE	C2514	ECEA1CU470	E 47UF 16V
	D2504 DFA1A4-4	DIODE	C2515	ECEA1HU1R0	E 1UF 50V
	D2505 DFA1A4-4	DIODE	C2516	ECQM1H682JV	P 6800PF J 50V
	D2506 DFA1A4-4	DIODE	C2517	QFZ0083563MZ	P 0.056UF M
	D2508 1SS133	DIODE	C2518	ECEA1CU100	E 10UF 16V
	D2509 MA4200M	DIODE	C2519	ECCF1H121J	C 120PF J 50V
	D2510 DFA1A4-4	DIODE	C2520	ECEA1CU101	E 100UF 16V
Δ	D2771 HZ7B2L-C1	DIODE	C2521	ECQM1H153JV	P 0.015UF J 50V
	D2772 1SS133	DIODE	C2522	ECEA1CU471	E 470UF 16V
	D2773 1SS133	DIODE	C2523	ECQM1H222JV	P 2200PF J 50V
	D2774 1SS133	DIODE	Δ C2525	ECQF6682JZ	PP 6800PF J 600V
	D2775 1SS133	DIODE	Δ C2526	ECQF6682JZ	PP 6800PF J 600V
	D2776 1SS133	DIODE	C2527	ECQF6682JZ	PP 6800PF J 600V
	D2777 DFA1A4-4	DIODE	Δ C2529	ECQF6153JZ	PP 0.068UF J 600V
			C2531	ECEA2CU010	E 1UF 160V
			C2532	QFK62AJ-335M	P 3.3UF 100V
			C2533	ECEA1HU102	E 1000UF 50V
			C2534	ECEA1EU471	E 470UF 25V
			C2535	ECQV1H474JZ	P 0.47UF J 50V
			C2536	ECQV1H474JZ	P 0.47UF J 50V

Ref.No.	Part No.	Description	Ref.No.	Part No.	Description
C2537	ECEA1HU100	E 10UF 50V	R2504	ERD16TJ102	C 1K OHM J 1/6W
C2538	ECQM1H102JV	P 1000PF J 50V	R2505	ERD16TJ684	C 680K OHM J 1/6W
C2539	ECCF1H151J	C 150PF J 50V	R2506	ERD16TJ102	C 1K OHM J 1/6W
C2540	ECEA1CU471	E 470UF 16V	R2507	ERD16TJ181	C 180 OHM J 1/6W
C2541	ECQV1H224JZ	P 0.22UF J 50V	R2508	ERD16TJ103	C 10K OHM J 1/6W
C2542	ECEA2EU330	E 33UF 250V			
C2545	ECQV1H474JZ	P 0.47UF J 50V	R2509	ERD16TJ273	C 27K OHM J 1/6W
C2546	ECQV1H474JZ	P 0.47UF J 50V	R2511	ERD16TJ681	C 680 OHM J 1/6W
C2591	ECKF1H222KB	C 2200PF K 50V	R2512	ERD16TJ681	C 680 OHM J 1/6W
C2601	ECEA1HU1R0	E 1UF 50V	R2513	ERD16TJ331	C 330 OHM J 1/6W
C2602	ECEA1EU471	E 470UF 25V	R2514	ERD16TJ333	C 33K OHM J 1/6W
C2603	ECEA1HU4R7	E 4.7UF 50V	R2515	ERD16TJ562	C 5.6K OHM J 1/6W
C2604	ECEA1HU4R7	E 4.7UF 50V	R2516	ERD16TJ223	C 22K OHM J 1/6W
C2605	ECQV1H104JZ	P 0.1UF J 50V	R2517	ERD16TJ104	C 100K OHM J 1/6W
C2606	ECQV1H104JZ	P 0.1UF J 50V	R2518	ERD16TJ104	C 100K OHM J 1/6W
C2607	ECEA1CU221	E 220UF 16V	R2519	ERD16TJ134	C 130K OHM J 1/6W
C2608	ECEA1EU222	E 2200UF 25V	R2520	ERD16TJ391	C 390 OHM J 1/6W
C2610	ECKF1H222KB	C 2200PF K 50V	R2521	ERD16TJ104	C 100K OHM J 1/6W
C2771	ECEA1AU101	E 100UF 10V	R2522	ERD16TJ103	C 10K OHM J 1/6W
C2772	ECEA1CU331	E 330UF 16V	R2523	ERD16TJ103	C 10K OHM J 1/6W
C2773	ECEA1VU101	E 100UF 35V	R2524	ERD16TJ683	C 68K OHM J 1/6W
C2774	ECEA1CU101	E 100UF 16V	R2525	ERD16TJ103	C 10K OHM J 1/6W
C2775	ECEA1CN101S	E 100UF 16V	R2526	QVPC611502HZ	CONTROL B 5K OHM
			R2527	ERD16TJ471	C 470 OHM J 1/6W
			R2528	ERD16TJ222	C 2.2K OHM J 1/6W
			R2529	ERDS1TJ101	C 100 OHM J 1/2W
			R2530	ERDS1TJ272	C 2.7K OHM J 1/2W
R2401	ERD16TJ223	C 22K OHM J 1/6W	R2531	ERG2ANJ151	M 150 OHM J 2W
R2402	ERD16TJ103	C 10K OHM J 1/6W	R2532	ERD16TJ153	C 15K OHM J 1/6W
R2403	ERD16TJ562	C 5.6K OHM J 1/6W	R2533	ERD16TJ153	C 15K OHM J 1/6W
			R2534	ERD16TJ101	C 100 OHM J 1/6W
R2404	ERD16TJ562	C 5.6K OHM J 1/6W			
R2405	ERD16TJ562	C 5.6K OHM J 1/6W	R2535	ERD16TJ683	C 68K OHM J 1/6W
R2406	ERD16TJ562	C 5.6K OHM J 1/6W	R2536	ERD16TJ472	C 4.7K OHM J 1/6W
R2407	ERD16TJ564	C 560K OHM J 1/6W	R2537	ERD16TJ472	C 4.7K OHM J 1/6W
R2408	ERD16TJ104	C 100K OHM J 1/6W	R2538	ERD16TJ101	C 100 OHM J 1/6W
			R2539	ERD16TJ183	C 18K OHM J 1/6W
R2409	ERD16TJ823	C 82K OHM J 1/6W			
R2410	ERD16TJ104	C 100K OHM J 1/6W	△ R2540	ERG2ANJ561	M 560 OHM J 2W
R2411	ERD16TJ104	C 100K OHM J 1/6W	R2543	ERG1ANJ221	M 220 OHM J 1W
R2412	ERD16TJ102	C 1K OHM J 1/6W	R2544	ERG1ANJ680	M 68 OHM J 1W
R2413	ERD16TJ153	C 15K OHM J 1/6W	R2545	ERG1ANJ182	M 1.8K OHM J 1W
			R2546	ERD16TJ103	C 10K OHM J 1/6W
R2414	ERDS1TJ121	C 120 OHM J 1/2W			
R2415	ERD16TJ272	C 2.7K OHM J 1/6W	R2547	ERDS1FJ1R2	C 1.2 OHM J 1/2W
R2416	ERD16TJ822	C 8.2K OHM J 1/6W	R2548	ERD16TJ104	C 100K OHM J 1/6W
R2417	ERD16TJ103	C 10K OHM J 1/6W	R2549	ERD16TJ473	C 47K OHM J 1/6W
R2418	ERD16TJ273	C 27K OHM J 1/6W	R2550	QVPE605-103H	CONTROL B 10K OHM
			R2553	ERD16TJ222	C 2.2K OHM J 1/6W
R2419	ERD16TJ102	C 1K OHM J 1/6W			
R2420	ERD16TJ223	C 22K OHM J 1/6W	R2554	ERD16TJ682	C 6.8K OHM J 1/6W
R2422	ERD16TJ333	C 33K OHM J 1/6W	R2556	ERD16TJ272	C 2.7K OHM J 1/6W
R2423	ERD16TJ183	C 18K OHM J 1/6W	R2557	ERD16TJ101	C 100 OHM J 1/6W
R2425	QVPE605-501H	CONTROL B 500 OHM	R2558	ERDS1FJ4R7	C 4.7 OHM J 1/2W
			R2562	ERD16TJ103	C 10K OHM J 1/6W
R2426	QVPE605-102H	CONTROL B 1K OHM			
R2427	QVPE605-501H	CONTROL B 500 OHM	R2565	ERD16TJ220	C 22 OHM J 1/6W
R2428	ERD16TJ101	C 100 OHM J 1/6W	R2568	ERD16TJ103	C 10K OHM J 1/6W
R2429	ERX1ANJ5R6	M 5.6 OHM J 1W	R2601	ERD16TJ102	C 1K OHM J 1/6W
R2430	ERD16TJ152	C 1.5K OHM J 1/6W	R2602	ERD16TJ102	C 1K OHM J 1/6W
			R2603	ERD16TJ390	C 39 OHM J 1/6W
R2431	ERDS1TJ182	C 1.8K OHM J 1/2W			
R2432	ERDS1TJ122	C 1.2K OHM J 1/2W	R2604	ERD16TJ123	C 12K OHM J 1/6W
R2433	QVPCA02-501H	CONTROL B 500 OHM	R2605	ERD16TJ470	C 47 OHM J 1/6W
R2434	ERDS1TJ681	C 680 OHM J 1/2W	R2606	ERG3ANJ180	M 18 OHM J 3W
R2435	ERDS1FJ1R2	C 1.2 OHM J 1/2W	△ R2771	CJ39520-00N	RR COMBINATION
			△ R2772	ERD16TJ223	C 22K OHM J 1/6W
R2436	ERD16TJ103	C 10K OHM J 1/6W			
R2501	ERD16TJ563	C 56K OHM J 1/6W	R2773	ERD16TJ682	C 6.8K OHM J 1/6W
R2502	ERD16TJ683	C 68K OHM J 1/6W	R2774	ERD16TJ101	C 100 OHM J 1/6W

Ref.No.	Part No.	Description	Ref.No.	Part No.	Description
R2775	ERD16TJ273	C 27K OHM J 1/6W			
R2776	ERD16TJ473	C 47K OHM J 1/6W			
R2777	ERD16TJ104	C 100K OHM J 1/6W			
R2778	ERQ14AJ4R7	F 4.7 OHM J 1/4W			
Δ R2779	ERD16TJ102	C 1K OHM J 1/6W			
R2780	ERD16TJ333	C 33K OHM J 1/6W			
R2781	ERD16TJ103	C 10K OHM J 1/6W			
	OTHERS				
Δ RY2501	CESK006-001	RELAY			
S2501	QSL4A13-C02	SWITCH			